

EPA Reg. No. 83520-3
Vol. 1 Part 1

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
401 M Street, S.W.
WASHINGTON, D.C. 20460

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DATA MATRIX

Date January 21, 2013		EPA Reg. No./File Symbol 83520-3		Page 1 of 7	
Applicant's/Registrant's Name & Address Tacoma AG, LLC c/o Biologic, Inc. 115 Obtuse Hill Road Brookfield, CT 06804		Product BIFEN 7.9 SC			
Ingredient Bifenthrin					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
Any data that may be required for the use on Dry Bilk Fertilizers; Livestock/Poultry Housing and Pet Kennels		Cite-All		PAY	
The following companies have been sent offer to pay letters:			Bayer Environmental Science	PAY	
			Research Triangle Park, NC		
			Univar USA, Inc.	PAY	
			Brookfield, CT		
			Wet & Forget USA, Ltd.	PAY	
			Washington, DC		
			Pyrethroid Working Group	PAY	
			Washington, DC		
			Generic Endangered Species TF	PAY	
			Gig Harbor, WA		
			Winfield Solutions, LLC	PAY	
			St. Paul, MN		
			Sergeant's Pet Care Products	PAY	
			Omaha, NE		
			Aceto Agricultural Chemicals	PAY	
			Port Washington, NY		
			Liberty Crop Protection LLC	PAY	
			Johnstown, CO		
Signature <i>Jan M Miller</i>			Name and Title Jane M. Miller, Agent		Date 01/21/2013

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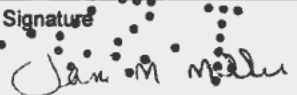
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			Washington, DC		
			Pyrethroid Working Group	PAY	
			Washington, DC		
			Genetic Endangered Species TR	PAY	
			Gig Harbor, WA		
			Winfield Solutions, LLC	PAY	
			St. Paul, MN		
			Sergeant's Pet Care Products	PAY	
			Omaha, NE		
			Aceco Agricultural Chemicals	PAY	
			Port Washington, NY		
			Liberty Crop Protection LLC	PAY	
			Johnstown, CO		
Signature 			Name and Title Jane M. Miller, Agent		Date 01/21/2013

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		Cite-All	Arysta Lifescience North America	PAY	
			Cary, NC		
			Osmose Utilities Services, Inc.	PAY	
			Buffalo, NY		
			S.C. Johnson & Son	PAY	
			Racine, WI		
			Nippon Soda Co. Ltd.	PAY	
			New York, NY		
			Control Solutions, Inc.	PAY	
			Pasadena, TX		
			FIFRA Endangered Species TF	PAY	
			Washington, DC		
			Residential Exposure Joint Venture	PAY	
			Washington, DC		
			Whitmire Micro-Gen Research	PAY	
			St. Louis, MO		
			Direct AG Source	PAY	
			Brookfield, CT		
Signature 			Name and Title Jane M. Miller, Agent		Date 01/21/2013

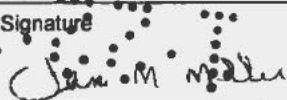
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		Cite-All	The Scotts Company	PAY	
			Marysville, OH 43041		
			McLaughlin Gormley King Co.	PAY	
			Minneapolis, MN 55427		
			Amvac Chemical Corp.	PAY	
			Newport Beach, CA 92660		
			The Andersons Lawn Fertilizer Div.	PAY	
			Maumee, OH 43537		
			Makhteshim Chemical Works	PAY	
			Raleigh, NC		
			Howard Fertilizer & Chemical	PAY	
			Salem, VA 24153		
			Spray Drift Task Force	PAY	
			Washington, DC 20006		
			Nufarm Americas Inc.	PAY	
			Morrisville, NC		
			Outdoor Residential Task Force	PAY	
			Washington, DC 20005		
Signature 			Name and Title Jane M. Miller, Agent		Date 01/21/2013

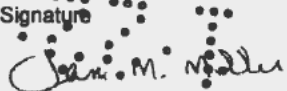
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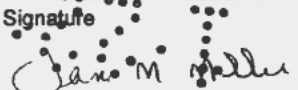
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Ingredient Bifenthrin					
Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
		Cite-All	Agricultural Re-Entry Task Force	PAY	
			Washington, DC 20005		
			Fuller System, Inc.	PAY	
			Woburn, MA		
			Kaizen Technologies, LLC	PAY	
			Johnstown, CO		
			FMC Corp.	PAY	
			Philadelphia, PA 19103		
			Non-Dietary Exposure Task Force	PAY	
			Washington, DC		
			Arizona Chemical Group	PAY	
			Mesa, AZ		
			Lesco, Inc.	PAY	
			Cleveland, OH		
			Makhteshim-Agan of North America	PAY	
			Raleigh, NC		
			Ensystem IV, Inc.	PAY	
			Gig Harbor, WA		
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		Cite-All	United Phosphorus Inc.	PAY	
			King of Prussia, PA		
			Atex Inc.	PAY	
			Valdosta, GA		
			Ensysyex II, Inc.	PAY	
			Gig Harbor, WA		
			Agricultural Handlers Exposure Task	PAY	
			Macon, MO		
			Southern States Cooperative, Inc.	PAY	
			Salem, VA		
			Helena Chemical Co.	PAY	
			Memphis, TN		
			Chemsico	PAY	
			St. Louis, MO		
			Sunniland Corp.	PAY	
			Sanford, FL		
			Loveland Products, Inc.	PAY	
			Greeley, CO		
Signature 			Name and Title Jane M. Miller, Agent		Date 01/21/2013

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WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

February 27, 2012

Jane Miller
Tacoma AG, LLC
Biologic Inc.
115 Obtuse Hill Road
Brookfield, CT 06804

Subject: Amendment – Bifenthrin Task Force Restrictions
Bifen 7.9 SC
EPA Reg. No. 83520-3
Your submission dated November 20, 2011

Dear Ms. Miller:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable subject to the comments listed below. Two (2) copies of the finished labeling must be submitted prior to releasing the product for shipment. A stamped copy of the label is enclosed for your records.

1. On the front panel delete the claim "Multi Use Insecticide" and replace the claim "Controls a Wide Range of Insects and Mites on Trees, Shrubs, Flowering Plants, Non-Bearing Fruit and Nut Trees, and Flowers" with "Controls Listed Insects and Mites on Trees, Shrubs, Flowering Plants, Non-Bearing Fruit and Nut Trees, and Flowers".
2. In the *Precautionary Statement* section replace "Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco" with "Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet". Also move the last paragraph starting with "When treating adjacent to an existing structure ... etc" and ending with "... structure until the clean-up is completed" to the *Directions for Use* section.
3. On page 12 replace "To control infestations of Arthropods, such as ants, cockroaches ... etc" with "To control infestations of Arthropods, including ants, cockroaches ... etc" under *Pest Under Slabs*.
4. On page 13 replace the heading "Lawn Application Recommendation" with "Lawn Application". Also replace "To ensure control of sub-surface pests, including but not

limited to Mole Crickets ... etc" with "To ensure control of sub-surface pests, including Mole Crickets ... etc".

5. On pages 15 & 16 replace "Repeat treatments should not be made more often than once per seven days" with "Repeat treatments must not be made more often than once per seven days". Also on page 21 replace "Repeat application should only take place if there are signs of renewed insect activity and should not exceed on application per 7 days" with "Repeat applications should only take place if there are signs of renewed insect activity and must not exceed on application per 7 days".
6. On page 15 replace "For example, to control ticks the Application Rates table shows that 0.5 to 1.0 fluid ounces of Bifen 7.9 SC should be applied per 1,000 square feet" with "For example, to control ticks the Application Rates table shows that 0.5 to 1.0 fluid ounces of Bifen 7.9 SC must be applied per 1,000 square feet".
7. On page 16 replace the heading "Ornamentals and Trees Application Recommendations" with "Ornamentals and Trees Application". Also replace "Bifen 7.9 SC is for use on, but not limited to, trees ... etc" with "Bifen 7.9 SC is for use on, trees ... etc".
8. On page 18 replace "etc ... Application Rate table shows that shows that 0.25 to 0.5 fluid ounces of Bifen 7.9 SC should be applied per 1,000 square feet" with "etc ... Application Rate table shows that shows that 0.25 to 0.5 fluid ounces of Bifen 7.9 SC must be applied per 1,000 square feet".
9. On page 19 & 21 replace the heading "Application Recommendations" with "Application". Also on page 19 replace "Use a 0.02 to 0.06% dilution to spray outside surfaces of building including, but not limited to, exterior siding ... etc" with "Use a 0.02 to 0.06% dilution to spray outside surfaces of building including, exterior siding ... etc".
10. On page 23 replace the title "Application Recommendations" with "Application". Also replace "These areas include, but are not limited to, baseboards, corners ... etc" with "These areas include baseboards, corners ... etc".

If you have any questions regarding this action, please contact BeWanda Alexander at Alexander.bewanda@epa.gov or (703) 305-7460.

Sincerely,



Richard Gebken
Product Manager
Insecticide Branch
Registration Division (7505P)

Enclosure

Bracketed text [] optional language

Bifen 7.9 SC

ACCEPTED
with COMMENTS
In EPA Letter Dated

FEB 27 2012

Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.

83520-3

[Multi Use Insecticide]

[Mixes Easily with Water]

[Controls a Wide Range of Insects and Mites on Trees, Shrubs, Flowering Plants, Non-Bearing Fruit and Nut Trees, and Flowers as listed below]

[Controls Pests Indoors and Outdoors on Residential, Institutional, Public, Commercial, and Industrial Buildings, and Lawns, Ornamentals, Parks, Recreational Areas and Athletic Fields.]

[For Use in Interiorscapes including Hotels, Shopping Malls, and Office Buildings]

[For Use in Outdoor Landscapes including Residential Dwellings, Parks, Institutional Buildings, Recreational Areas, Athletic Fields, and Home Lawns]

[Prevents and Controls Termites [In] [and] [Around] [Structures] [and] [Constructions]]

[Prevents and Controls Ticks (including ticks that may transmit Lyme Disease and Rocky Mountain Spotted Fever)]

[For the Control of Deer ticks (Ixodes sp.)]

[<PRODUCT NAME> contains Bifenthrin, the active ingredient used in <BRAND NAME>™ or ®.]

[<PRODUCT NAME> is not manufactured or distributed by <BASIC REGISTRANT / BRAND HOLDER>, seller of <BRAND>™ or ®.]

[<BRAND>™ or ® is a trademark of <TRADEMARK HOLDER>.]

When used as a Termiticide, Individuals/ Firms must be licensed by the State to apply termiticide products. States may have more restrictive requirements regarding qualifications of persons using this product. Consult the pest control regulatory agency of your State prior to use of this product.

Active Ingredient:

Bifenthrin*.....

By Wt.

7.9%

Other Ingredients:.....

92.1%

Total.....

100.0%

Contains 3/4 pound active ingredient per gallon.

*Cis isomers 97% minimum, trans isomers 3% maximum.

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to do so by the poison control center or doctor.• Do not give anything by mouth to an unconscious person.
If inhaled	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.• Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For a medical emergency involving this product, call 1-800-222-1222.	
Note to Physician - This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.	

EPA Approved Label Notification 06022009

Amendment to comply with California Label & DCI Language 11 01 2011

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Caution - Harmful if swallowed, inhaled, or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove contaminated clothing and wash before reuse.

All pesticide handlers (mixers, loaders, and applicators) must wear long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves. After the product is diluted in accordance with label directions for use, and/or when mixing and loading using a closed spray tank transfer system, or an in-line injector system, shirt, pants, socks, shoes, and waterproof gloves are sufficient. In addition, all pesticide handlers must wear a respiratory protection device when working in a non-ventilated space (one of the following NIOSH approved respirator with any R, P or HE filter or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R,P or HE prefilter). All pesticide handlers must wear protective eyewear when working in non-ventilated space or when applying termiticide by rodding or sub-slab injection.

When treating adjacent to an existing structure, the applicator must check the area to be treated, and immediately adjacent areas of the structure, for visible and accessible cracks and holes to prevent any leaks or significant exposures to persons occupying the structure. People present or residing in the structure during application must be advised to remove their pets and themselves from the structure if they see any signs of leakage. After application, the applicator is required to check for leaks. All leaks resulting in the deposition of termiticide in locations other than those prescribed on this label must be cleaned up prior to leaving the application site. Do not allow people or pets to contact contaminated areas or to reoccupy contaminated areas of the structure until the clean-up is completed.

Environmental Hazards

This pesticide is extremely toxic to fish and aquatic invertebrates. To protect the environment, application is prohibited directly into sewers or drains, or to any area like a gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur. Do not allow the product to enter any drain during or after application. To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow to drift to blooming crops if bees are visiting the treatment area.

Physical and Chemical Hazards

Do not apply water-based dilutions of Bifen 7.9 SC to electrical conduits, motor housings, junction boxes, switch boxes or other electrical equipment because of possible shock hazard.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use on plants intended only for aesthetic purposes or climatic modifications and being grown in interior plantscapes, ornamental gardens or parks, or lawns and grounds.

RESTRICTIONS:

Do not apply a broadcast application to interior surfaces of homes.
Do not apply this product in patient rooms or in any rooms while occupied by the elderly or infirm.
Do not apply in classrooms when in use.
Do not apply when occupants are present in the immediate area in institutions such as libraries, sports facilities, etc.
Do not allow people or pets on treated surfaces until spray has dried.
Let surfaces dry before allowing people and pets to contact surface.
During any application to overhead areas of structure, cover surface below with plastic sheeting or similar material except for soil surfaces in crawlspaces.

Do not allow spray to contact food, foodstuffs, food-contacting surfaces or food utensils or water supplies. Thoroughly wash dishes and food handling utensils with soap and water if they become contaminated by application of this product.

Do not treat areas where food is exposed.

During indoor surface applications do not allow dripping or runoff to occur.

Bifen 7.9 SC will not stain, or damage any surface that water alone will not stain or damage.

Do not apply directly to sewers or drains, or to any area like a gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur. Do not allow the product to enter any drain during or after application.

Do not apply by air.

Do not apply in greenhouses, nurseries.

Do not apply this product through any kind of irrigation system.

Not for use on sod farm turf, golf course turf, or grass grown for seed.

Do not apply to pets, crops, or sources of electricity.

Firewood is not to be treated.

Do not apply this product in livestock buildings (barns).

Do not broadcast apply more than 0.4 lbs. ai/acre per year.

For residential lawn use, do not apply more than 0.2 lbs. ai/acre per application.

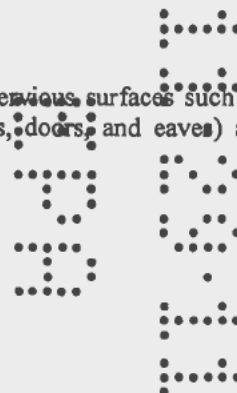
Application equipment that delivers low volume treatments, such as Patriot Injector® or Actisol® applicators, may also be used to make crack and crevice, deep harborage, spot and general surface treatments of Bifen 7.9 SC.

Additional Application Restrictions for Outdoor Use:

- The treatment site must be covered prior to a rain event in order to prevent run-off of the pesticide into non-target areas.
- The applicator must either cover the soil min/herself or provide written notification of the above requirement to the contractor on site and to the person commissioning the application (if different than the contractor). If notice is provided to the contractor or person commissioning the application, then they are responsible under FIFRA to ensure that: 1) if the concrete slab cannot be poured over the treated soil within 24 hours of application the treated soil is covered with a waterproof covering (such as polyethylene sheeting), and 2) the treated soil is covered if precipitation is predicted to occur before the concrete slab is scheduled to be poured.
- Do not treat soil that is water-saturated or frozen.
- Do not treat when raining.
- Do not allow treatment to runoff from the target area.
- Do not apply with 10 feet of storm drains. Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes or ponds; estuaries; and commercial fish farm ponds).
- Do not make on-grade applications when sustained wind speeds are above 10 mph (at application site) at nozzle end height.

Additional Application Restrictions for Residential Outdoor Surface and Space Sprays:

- All out door applications must be limited to spot or crack-and-crevice treatments only, except or the following permitted uses:
 - (1) Treatment to soil or vegetation around structures;
 - (2) Applications to lawns, turf, and other vegetation;
 - (3) Applications to building foundations, up to a maximum height of 3 feet.
- Other than applications to building foundations, all outdoor applications to impervious surfaces such as sidewalks, driveways, patios, porches and structural surfaces (such as windows, doors, and eaves) are limited to spot and crack-and-crevice applications only.
- Do not water the treated area to the point of runoff.
- Do not make applications during rain.



In the State of New York, for application uses outdoors on ornamentals and lawns in landscaped areas around residential, institutional, public, commercial and industrial buildings, parks, recreational areas and athletic fields:

The Following Precautionary Measures Must be Obeyed.

A 100 foot buffer must be maintained between the application site and the waters of the State. A 100 foot buffer is required for all waters except those entirely privately owned with no outlet to State waters. The buffer must consist of well maintained, established vegetation (i.e. grass, etc.) growth and must be maintained to prevent the development of channels.

In New York State, do make a single repeat application of this product if there are signs of renewed insect activity, but no sooner than two weeks after the first application.

SUBTERRANEAN TERMITE CONTROL

General Information

Using this product in and around structures and building construction will prevent and control termite infestations.

To institute a barrier between the wood and the termites in the soil, the chemical dilution must be effectively dispersed in the soil. It is important to remove unnecessary materials that contain cellulose and wood from around foundation walls, crawl spaces (inside of structure), and porches, and fix damaged plumbing and construction grade in order to deny termite access to moisture.

To use this product effectively, it is important that the service technician be familiar with current termite control practices including trenching, rodding, sub-slab injection, low-pressure spray application, coarse fan spraying of soil surfaces, crack and crevice (void) injection, excavated soil treatment, and brush or spray applications to infested or susceptible wood. Using these techniques correctly is essential to prevent or control infestations by subterranean termite species of genera *Coptotermes*, *Heterotermes*, *Reticulitermes* and *Zootermopsis*. When determining what procedures to follow, the service technician should consider certain variables such as biology and behavior of the termite species, structure design, heating ventilation, and air conditioning (HVAC) systems, water table, soil type and compaction, grade conditions, and the location and type of domestic water supplies and utilities.

For information concerning the most up to date control practices in a given region or locale, consult the local resources for structural pest control, state cooperative extensions, and regulatory agencies.

Important: The following precautions must be observed to avoid contamination of public and private water supplies:

- Use anti-backflow equipment or procedures to prevent siphonage of insecticide into water supplies.
- Do not contaminate cisterns, wells, or other water tanks by treating the soil beneath these structures.
- Do not treat soil that is water saturated or frozen.
- Do not treat soil where runoff may occur.
- Consult state and local specifications for recommended treatment practices in your area.
- If local or state specifications do not exist, consult the Federal Housing Administration Specifications (H.U.D.) guidance documents.

Note: For the purpose of this label, crawl spaces are defined as being inside of the structure.

Critical Areas: Points at which the foundation is penetrated or abuts another structure are Critical Areas. These include utility entry points, cracks and expansion joints, bath traps and adjacent structures such as stairs, patios and slab additions.

Structures with Wells/ Cisterns Inside Foundations

Structures that contain wells or cisterns within the foundation of a structure can only be treated using the following techniques:

1. Do not treat soil while it is beneath or within the foundation or along the exterior perimeter of a structure that contains a well or cistern. The treated backfill method must be used if soil is removed and treated outside/away from the foundation. The treated backfill technique is described as follows:

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- a) Trench and remove soil to be treated onto heavy plastic sheeting or similar material or into a wheelbarrow.
 - b) Treat the soil at the rate of 4 gallons of dilute emulsion per 10 linear feet per foot of depth of the trench, or 1 gallon per 1.0 cubic feet of soil. See "Mixing Directions" section of this label. Mix thoroughly into the soil taking care to contain the liquid and prevent runoff or spillage.
 - c) After the treated soil has absorbed the diluted emulsion, replace the soil into the trench.
2. Treat infested and/or damaged wood in place using an injection technique such as described in the "Control of Wood Infesting Insects" section of this label.

Structures with Adjacent Wells/ Cisterns and/or Other Water Bodies

Applicators must inspect all structures with nearby water sources such as wells, cisterns, surface ponds, streams, and other bodies of water and evaluate, at a minimum, the treatment recommendations listed below prior to making an application

1. Prior to treatment, if feasible, expose the water pipe(s) coming from the well to the structure, if the pipe(s) enter the structure within 3 feet of grade.
2. Prior to treatment, applicators are advised to take precautions to limit the risk of applying the termiticide into subsurface drains that could empty into any bodies of water. These precautions include evaluating whether application of the termiticide to the top of the footer may result in contamination of the subsurface drain. Factors such as depth to the drain system and soil type and degree of compaction should be taken into account in determining the depth of the treatment.
3. When appropriate (i.e., on the water side of the structure), the treated backfill technique (described above) can also be used to minimize off-site movement of termiticide.

Before these techniques are used close to cisterns, wells, or other bodies of water, seek advice from local, state or federal agencies for information on treatment practices that are acceptable in your area.

Application Rate:

Use a 0.06% dilution for subterranean termites. For other pests on the label use specific listed rates.

Mixing Directions: Mix the termiticide use dilution in the following manner:

1. Fill tank $\frac{1}{4}$ to $\frac{1}{2}$ full.
2. Start pump to begin by-pass agitation and place end of treating tool in tank to allow circulation through hose.
3. Add appropriate amount of Bifen 7.9 SC.
4. Add remaining amount of water.
5. Let pump run and allow recirculation through the hose for 2 to 3 minutes.

Bifen 7.9 SC may also be combined into full tanks of water. If combined into full tanks of water, allow sufficient time for agitation and/or recirculation to ensure consistency or dilution.

To prepare a 0.06% water dilution, ready to use, dilute 3 quarts of Bifen 7.9 SC with 99.25 gallons of water.

Mixing:

Using the chart below, determine the volume of Bifen 7.9 SC and water to produce the desired volume of finished dilution

Amount of Bifen 7.9 SC (Gallons except where noted)			
Emulsion Concentrate	Amount of Bifen 7.9 SC	Amount of Water	Desired Gallons of Finished Emulsion
0.06%	1 oz.	127 oz.	1
	5 oz.	4.9	5
	10 oz.	9.9	10
	25 oz.	24.8	25
	1.5 qt.	49.6	50
	2.25 qt.	74.4	75
	3 qt.	99.25	100

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	4.5 qt.	148.8	150
	6 qt.	198.5	200
0.12%*	2 oz.	126 oz.	1
	10 oz.	4.9	5
	19.5 oz.	9.8	10
	1.5 qt.	24.6	25
	3 qt.	49.2	50
	4.5 qt.	73.8	75
	6 qt.	98.5	100
	9 qt.	147.7	150
	3	197	200

*When treating for termites, use this rate only in conjunction with volume adjustments, foam applications or underground services applications as listed below.

Common units of measure:

1 pint = 16 fluid ounces (oz.)

1 quart = 2 pints = 4 cups = 32 fluid ounces (oz.)

Application Volume: To provide maximum control and protection against termite infestation apply the specified volume of the finished water emulsion and active ingredient as set forth in the directions for use section of this label. If soil will not accept the labeled application volume, the volume may be reduced provided there is a corresponding increase in concentration so that the amount of active ingredient applied to the soil remains the same.

Note: Large reductions of application volume reduce the ability to obtain a continuous barrier. Variance is allowed when volume and concentration are consistent with the label directed rates and a continuous barrier can still be achieved.

The volume of the 0.12% emulsion may be reduced by ½ the labeled volume where desirable for pre- and post-construction applications. When the volume is reduced, the hole spacing for subslab injection and soil rodding may also need to be adjusted to account for lower volume dispersal of the termiticide in the soil. Consult the following Volume Adjustment Chart for details.

VOLUME ADJUSTMENT CHART		
Rate (% emulsion)	0.06%	0.12%
Volume allowed		
Horizontal (gallons emulsion/10 ft ²)	1.0 gallons	0.5 gallons
Vertical (gallons emulsion/10 linear ft.)	4.0 gallons	2.0 gallons

After treatment: All holes in commonly occupied areas into which Bifen 7.9 SC has been applied must be plugged. Plugs must be of a non-cellulose material or covered by an impervious, non-cellulose material.

Foam Applications

Bifen 7.9 SC emulsion, from 0.06 to 0.12% may be converted to foam with 2X – 40X expansion characteristics and used to control or prevent termite infestations.

Depending on the circumstances, foam applications may be used alone or in combination with liquid applications. Applications may be made behind veneers, piers, chimney bases, into rubble foundations, into block voids or structural voids, under slabs, stoops, porches, or to the soil in crawlspaces, and other similar voids.

Foam and liquid application must be consistent with volume and active ingredient instructions in order to insure proper application has been made. The volume and amount of active ingredient are essential to an effective treatment. At least 75% of the labeled liquid emulsion volume of product must be applied, with the remaining percent delivered to appropriate areas using foam application. Refer to label and use recommendations of the foam manufacturer and the foaming equipment manufacturer.

Foam applications are generally a good supplement to liquid treatments in difficult areas, but may be used alone in difficult spots.

Application Under Slabs or to Soil in Crawlspaces to Prevent or Control Termites

When making applications, Bifen 7.9 SC foam can be used alone or in combination with liquid emulsion. Whether applied as a emulsion, foam, or some of both, the equivalent of at least 4 gallons of 0.06% emulsion (4 ounces of Bifen 7.9 SC concentrate) per 10 linear feet must be applied for vertical barrier, or at least 1 gallon of 0.06% emulsion (1 ounce of Bifen 7.9 SC concentrate) per 10 square feet must be applied for a horizontal barrier. For a foam only application, apply Bifen 7.9 SC concentrate in sufficient concentration and volume to equal 4 ounces of concentrate per 10 linear feet or 1 ounce of concentrate per 10 square feet. For example, 2 gallons of 0.12% emulsion converted to foam and used to cover 10 linear feet is the equivalent of 4 gallons of 0.06% emulsion per 10 linear feet.

Sand Barrier Installation and Treatment

As long as termites have access to soil that has not been treated and can avoid soil that has been treated with Bifen 7.9 SC, they can build mud tubes over surfaces that have been treated. Cracks and spaces should be filled with play box or builder's sand and then treated in the same manner as soil. Follow the rates listed in the Bifen 7.9 SC label.

Retreatment for subterranean termites can only be performed if there is clear evidence of reinfestation or disruption of the barrier due to construction, excavation, or landscaping and/or evidence of the breakdown of the termiticide barrier in the soil. These vulnerable or reinfested areas may be retreated in accordance with application techniques described in this product's labeling. The timing and type of these retreatments will vary depending on factors such as termite pressure, soil types, soil conditions and other factors which may reduce the effectiveness of the barrier.

Annual retreatment of the structure is prohibited unless there is clear evidence that reinfestation or barrier disruption has occurred.

Application in Conjunction with Termite Baits

As part of an IPM (integrated pest management) program for termite control, Bifen 7.9 SC may be applied to areas of the structure with known or suspected infestations such as plumbing, utility entry sites, bath traps, expansion joints, and foundation cracks at a rate of 0.06% as a spot treatment or complete barrier treatment. Applications may be made as described in the **Post Construction Subterranean Termite Treatment** section of this label.

Pre-Construction Subterranean Termite Treatment

Do not apply at a lower dosage and/or concentration than specified on this label for applications prior to the installation of the finished grade.

RESTRICTIONS:

- The treatment site must be covered prior to a rain event in order to prevent run-off of the pesticide into non-target areas.
- The applicator must either cover the soil min/herself or provide written notification of the above requirement to the contractor on site and to the person commissioning the application (if different than the contractor). If notice is provided to the contractor or person commissioning the application, then they are responsible under FIFRA to ensure that: 1) if the concrete slab cannot be poured over the treated soil within 24 hours of application the treated soil is covered with a waterproof covering (such as polyethylene sheeting), and 2) the treated soil is covered if precipitation is predicted to occur before the concrete slab is scheduled to be poured.
- Do not treat soil that is water-saturated or frozen.
- Do not treat when raining.
- Do not allow treatment to runoff from the target area.
- Do not apply within 10 feet of storm drains. Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes or ponds; estuaries; and commercial fish farm ponds).
- Do not make on-grade applications when sustained wind speeds are above 10 mph (at application site) at nozzle end height.

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When treating foundations deeper than 4 feet, apply the termiticide as the backfill is being replaced, or if the construction contractor fails to notify the applicator to permit this, treat the foundation to a minimum depth of 4 feet after the backfill has been installed. The applicator must trench and rod into the trench or trench along the foundation walls and around pillars and other foundation elements, at the rate prescribed from grade to a minimum depth of 4 feet. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. However, in no case should a structure be treated below the footing.

To produce effective pre-construction subterranean termite control, create vertical and/or horizontal chemically treated zones of protection using 0.06% emulsion of Bifen 7.9 SC. Follow the current edition of the Housing and Urban Development Minimum Property Standards to assure that F.H.A. termite-proofing requirements are met.

Horizontal Barriers

Establish a horizontal chemical barrier wherever treated soil will be covered by a slab, such as basement floors, carports, entrance platforms, footing trenches, and slab floors.

Apply 1 gallon of 0.06% emulsion per 10 square feet, or use 1 fluid ounce of Bifen 7.9 SC per 10 square feet in sufficient water (no less than ½ gallon or more than 2 gallons) to provide a uniform treated barrier for the area being treated.

If the fill is coarse aggregate, such as washed gravel, a sufficient volume of emulsion must be applied to allow it to reach the soil beneath for coarse fill.

Make applications with a low-pressure spray (less than 50 p.s.i.) using a coarse spray nozzle. If foundation walls have not been installed around the treated soil and the slab will not be poured the same day as treatment, the treated soil must be covered with a water-proof barrier. Polyethylene sheeting may be used for this purpose.

Vertical Barriers

Vertical barriers must be established in Critical Areas such as along the inside of foundation walls, plumbing, bath traps, utility services and other features that will penetrate the slab.

Using a 0.06% emulsion, apply 4 gallons of emulsion per 10 linear feet per foot of depth or 4 fluid ounces of Bifen 7.9 SC per 10 linear feet per foot of depth from grade level to the top of the footing in sufficient water (not less than 2 gallons or more than 8 gallons) to provide a uniform treated barrier.

When trenching and rodding into the trench, or trenching, ensure that the emulsion reaches the top of the footing. Space rod holes so that a continuous treated barrier is created, but not exceeding 12 inches apart. Avoid soil wash-out around the footing. Trenches should be about 6 inches wide and 6 inches deep. Mix the chemical emulsion with the soil as it is being replaced in the trench. Inside vertical barriers may not be required for monolithic slabs.

When treating hollow block voids, use 2 gallons of emulsion per 10 linear feet to assure that the emulsion reaches the top of the footing..

Prior to each application, applicators must notify the general contractor, construction superintendent, or similar responsible party, of the intended termiticide application and intended sites of application and instruct the responsible person to notify construction workers and other individuals to leave the area to be treated during application and until the termiticide is absorbed into the soil.

Post Construction Subterranean Termite Treatment

For a post-construction treatment, use a 0.06% emulsion. Post-construction treatments shall be made by subslab injection, trenching and rodding into the trench or trenching using a low-pressure spray not exceeding 25 p.s.i at the nozzle. Proper precautions should be taken to avoid soil wash-out around the footing.

Locate, identify, and mark wells, electrical conduits, water and sewer lines, and radiant heat pipes prior to application of Bifen 7.9 SC. Do not puncture or inject Bifen 7.9 SC into these structures.

Basements

Treatment must be made by trenching and rodding into the trench, or trenching at the rate of 4 gallons of emulsion per 10m linear feet per foot of depth wherever the footing, from grade to the bottom of the foundation, is greater than 1 foot of depth. When the footer is greater than four feet below grade, the applicator may trench and rod into the trench, or trench beside foundation walls at the rate designated for four feet of depth. Space rod holes to create a continuous insecticidal barrier, but in no case more than 12 inches apart. Depending on the type of soil, degree of compaction and location of termite activity, the actual depth of treatment will differ. However, a structure should never be treated below the footer. Sub-slab injection may be needed beside the inside of foundation walls, around conduits, piers, and pipes, beside both sides of interior footing-supported walls, and beside cracks and partition walls.

Accessible Crawl Spaces: For crawl spaces, apply vertical termiticide barriers at the rate of 4 gallons of emulsion per 10 linear feet per foot of depth from grade to the top of the footing, or if the footing is more than 4 feet below grade, to a minimum depth of 4 feet. Apply by trenching and rodding into the trench, or trenching. Treat both sides of foundation and around all piers and pipes. Where physical obstructions such as concrete walkways adjacent to foundation elements prevent trenching, treatment may be made by rodding alone. When soil type and/or conditions make trenching prohibitive, rodding may be used. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. Read and follow the mixing and use direction section of the label if situations are encountered where the soil will not accept the full application volume.

1. Rod holes and trenches must not extend below the bottom of the footing.
2. Rod holes must be spaced so as to achieve a continuous termiticide barrier but in no case more than 12 inches apart.
3. Trenches must be a minimum of 6 inches deep or to the bottom of the footing, whichever is less, and need not to be wider than 6 inches. When trenching in sloping (tiered) soil, the trench must be stepped to ensure adequate distribution and prevent termiticide from running off. The emulsion must be mixed with the soil as it is replaced in the trench.
4. When treating plenums or crawl spaces, turn off the air circulation system of the structure until application has been completed and all termiticide has been absorbed by the soil.

Inaccessible Crawl Spaces: For inaccessible interior areas, such as areas where there is insufficient clearance between floor joists and ground surfaces to allow operator access, excavate if possible, and treat according to the instruction for accessible crawl spaces. Otherwise, apply one or a combination of the following two methods.

1. To establish a horizontal barrier, apply to the soil surface, 1 gallon of emulsion per 10 square feet overall using a nozzle pressure of less than 25 p.s.i. and a coarse application nozzle (e.g., Delavan® Type RD Raindrop®, RD-7 or larger, or Spraying Systems Co. 8010LP TeeJet® or comparable nozzle). For an area that cannot be reached with the application wand, use one or more extension rods to make the application to the soil. Do not broadcast or powerspray with higher pressures.
2. To establish a horizontal barrier, drill through the foundation wall or through the floor above and treat the soil perimeter at a rate of 1 gallon of emulsion per 10 square feet. Drill spacing must be at intervals not to exceed 16 inches. Many states have smaller intervals, so check State regulations which may apply.

When treating plenums and crawl spaces, turn off the air circulation systems of the structure until application has been completed and all termiticide has been absorbed by the soil.

Excavation Technique: If treatment must be made in difficult situations, along fieldstone or rubble walls, along faulty foundation walls, and around pipes and utility lines which lead downward from the structure to a well or pond, apply using the following technique:

- a. Prepare a trench, placing the removed soil into heavy-weight plastic sheeting or similar, water-impermeable material.
- b. Treat the soil with 4 gallons of 0.06% emulsion per 10 linear feet per foot of depth of the trench. Completely mix the emulsion into the soil exercising care to avoid liquid running off the sheeting.
- c. Place the treated soil back into the trench after it has absorbed the emulsion.

Attention: Wear NIOSH approved unvented goggles and a respirator when applying Bifen 7.9 SC in a confined area.

Foundations

For applications made after the final grade is installed, the applicator must trench and rod into the trench or trench along the foundation walls and around pillars and other foundation elements, at the rate prescribed from grade to the top of the footing. When the footing is more than four (4) feet below grade, the applicator must trench and rod into the trench or trench along the foundation walls at the rate prescribed to a minimum depth of four feet. The actual depth of treatment will vary depending on soil type, degree of compaction, and location of termite activity. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. However, in no case should a structure be treated below the footing.

Masonry Voids: Drill and treat voids in multiple masonry elements of the structure extending from the structure to the soil in order to create a continuous treatment barrier in the area to be treated. Apply at a rate of 2 gallons of emulsion per 10 linear feet of footing, using a nozzle pressure of less than 25 p.s.i. When using this treatment, access holes must be drilled below the sill plate and should be as close as possible to the footing as is practical. Treatment of voids in block or rubble foundation walls must be closely examined: Applicators must inspect areas of possible runoff as a precaution against application leakage in the treated areas. Some areas may not be treatable or may require mechanical alteration prior to treatment.

All leaks resulting in the deposition of termiticide in locations other than those prescribed on this label must be cleaned up prior to leaving the application site. Do not allow people or pets to contact contaminated areas or to reoccupy the contaminated areas of the structure until the clean-up is completed.

Note: When treating behind veneer structures (walls, etc.) take proper care to not drill beyond the veneer. If concrete blocks exist behind the veneer, both can be drilled and treated simultaneously.

Bifen 7.9 SC may not be used in voids insulated with rigid foam insulation.

Slabs

Create vertical barriers by trenching and rodding into the trench or trenching outside at the rate of 4 gallons of emulsion per 10 linear feet per foot of depth and by sub-slab injection within the structure. Ensure an even distribution of chemical. Applications must not be made below the bottom of the footing.

Apply beside the outside of the foundation and under the slab on the inside of foundation walls, where needed. Treatment of slabs may also be necessary under and beside both sides of any interior footing-supported walls, in all cracks and expansion joints, and beside one side of interior partitions. By long-rodding or grid pattern injection vertically through the slab, horizontal barriers may be created where necessary.

- a. To permit the creation of an uninterrupted insecticidal barrier, drill holes in the foundation and/or slab.
- b. For foundations that are less than or equal to 1 foot, dig a narrow trench about 6 inches wide beside the outside of the foundation walls. Do not dig beneath the bottom of the footing. As the soil is placed back into the trench, apply 4 gallons of 0.06% emulsion per 10 linear feet per foot of depth to the trench and soil.
- c. For foundations that are deeper than 1 foot, follow the rates stated above for basements
- d. A 0.06% emulsion may be used to treat exposed and wood in bath traps.

SPECIFIC PEST CONTROL APPLICATIONS

Underground Services such as, but not limited to: wires, cables, utility lines, pipes, conduits, etc. Services may be within structures, in right-of-ways or to protect long range (miles) of installations of services.

To prevent attack by termites and ants, apply 0.06 to 0.12% Bifen 7.9 SC emulsion to the soil.

Apply to the bottom of the trench at the rate of 2 gallons of emulsion per 10 linear feet. Let the emulsion be absorbed into the soil. Lay services on the treated soil and cover with about 2 inches of fill soil. Apply another 2 gallons per 10 linear feet over the soil surface to complete the chemical barrier. In wide trenches, only the soil near the services should be treated. A continuous barrier of treated soil surrounding the services must be established.

In cases where the soil will not accept the above labeled volume, 1 gallon of 0.12% Bifen 7.9 SC may be used per 10 linear feet of trench. Apply both to the bottom of the trench and over the soil on top of the services.

Fill the trench with treated fill soil. Treat the soil where each service sticks out from the ground by trenching/rodding of not more than 1 to 2 gallons of emulsion into the soil.

Precautions: Do not treat electrically active underground services.

Posts, Poles, and Other Constructions: Around wooden constructions such as signs, fences and landscape ornamentation an insecticidal barrier can be established by treating with a 0.06% emulsion. Sub-surface injection and gravity-flow through holes in the bottom of the trench, are two treatment methods that can be used on poles and posts that have already been installed. A complete chemical barrier around the pole can be established by treating on all sides. For poles and posts less than six inches in diameter use 1 gallon of emulsion per foot of depth and for larger poles, use 1.5 gallons of emulsion per foot of depth. Apply to a depth of 6 inches below the bottom of the wood. For larger constructions, use 4 gallons per 10 linear feet per foot of depth.

Treatment of Wood-in-Place for Control of Wood-Infesting Insects: (Localized Areas in Structure) For the control of insects such as Termites, Ants, Carpenter Ants, and wood-infesting beetles such as Old House Borer and

Powder Post in localized areas of infested wood in and around structures, apply a 0.06% emulsion to voids and galleries in damaged wood and in spaces between wooden members of a structure and between wood and foundations where wood is at risk. Paint on or fan spray applications may also be used. Place plastic sheeting under overhead areas that are spot treated except for soil surfaces in crawl spaces. Areas in which access is difficult may be treated by drilling, and then injecting the emulsion with a crack and crevice injector into the damaged wood or void spaces. This type of application is not intended to be a substitute for soil treatment, mechanical alteration or fumigation to control extensive infestation of wood-infesting insects.

To control termite carton nests in trees or building voids inject with a 0.06% emulsion. Multiple injection points to varying depths may be necessary. Carton nest material should be removed from building voids when nests are discovered.

Control of Bees and Wasps Indoors: To control Bees, Wasp, Hornets, and Yellow-Jackets, apply a 0.06% emulsion. Application should be made in the late evening when insects are at rest. Spray liberally into hiding and breeding places, especially under attic rafters, contacting as many insects as possible. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Repeat application is necessary only if there are signs of renewed insect activity.

Important: Do not apply emulsion until location of heat pipes, ducts, water and sewer lines and electrical conduits are known and identified. Caution must be taken to avoid puncturing and injection into these structural elements. Do not apply into electrical fixtures, switches, or sockets.

In the home, all food processing surfaces and utensils in the treatment area should be covered during treatment or thoroughly washed before re-use. Remove pets, birds, and cover aquariums before spraying. Do not permit humans or pets to contact treated surfaces until the spray has dried.

During any overhead applications to overhead interior areas of structures, cover surfaces below with plastic sheeting or similar materials.

Wear protective clothing, unvented goggles, gloves and respirator, when applying to overhead areas or in poorly ventilated areas. Avoid touching sprayed surfaces until spray has completely dried.

Broadcast Treatment of Wood for the Control of Wood-infesting Insects and Nuisance Pests: (Outside of Structure) In order to control wood-infesting insects active inside trees, utility poles and/or fence posts, drill to the interior infested cavity and inject a 0.06% emulsion. If treating nuisance pests on the exterior of the structure, apply a 0.06% emulsion with a fan spray using a maximum pressure of 25 psi. and apply just to the point of run-off. To control Bees, Wasps, Hornets, and Yellow-Jackets, direct the spray at nest openings in the ground, bushes, and in cracks and crevices. Saturate nest openings and contact as many insects as possible. Apply in late evening when insects are at rest.

Pests Under Slabs: To control infestations of Arthropods, such as ants, cockroaches and scorpions living beneath the slab area, drill and inject, or horizontal rodding and then inject 1 gallon of a 0.06% to 0.12% emulsion per 10 square feet or 2 gallons of emulsion per 10 linear feet.

Formula for Determining the Active Ingredient Content of the Finished Spray Mixture: The following formula may be used to determine the percent active ingredient that is in the spray tank after mixing Bifen 7.9 SC:

$$\frac{(7.9\%) \times (\text{Fl. oz. of Bifen 7.9 SC added to tank})}{(\text{Gallons of finished spray mix}) \times (128)} = \text{Percent Active Ingredient of spray mix}$$

LAWNS AND ORNAMENTALS

General Application Instructions

Bifen 7.9 SC may be mixed with water and other aqueous carriers for the control of insects and mites on trees, shrubs, foliage plants, non-bearing (perennial crops that will not produce a harvestable raw agricultural commodity during the season of application) fruit and nut trees, and flowers in interiorscapes including hotels, shopping malls, office buildings, etc., and outdoor plantscapes, such as around residential dwellings, parks, institutional buildings, recreational areas, athletic fields and home lawns.

In the State of New York, for application uses outdoors on ornamentals and lawns in landscaped areas around residential, institutional, public, commercial and industrial buildings, parks, recreational areas and athletic fields:

The Following Precautionary Measures Must be Obeyed.

A 100 foot buffer must be maintained between the application site and the waters of the State. A 100 foot buffer is required for all waters except those entirely privately owned with no outlet to State waters. The buffer must consist of well maintained, established vegetation (i.e. grass, etc.) growth and must be maintained to prevent the development of channels.

In New York State, do make a single repeat application of this product if there are signs of renewed insect activity, but no sooner than two weeks after the first application.

Bifen 7.9 SC may be tank-mixed with insect growth regulators as well as other pesticides. Observe all precautions and the Directions for Use for each tank mix product. Physical compatibility of Bifen 7.9 SC may vary with different combinations of products, and local cultural practices. Prepare a small scale (pint or quart jar) test sample for any combination not tested previously. Use the proper proportions of pesticides and water to make sure of the compatibility of the mixture.

Unless otherwise noted, follow the procedure below to prepare a tank mix:

- 1) Add wettable powders to tank water
- 2) Agitate
- 3) Add liquids and flowables
- 4) Agitate
- 5) Add emulsifiable concentrates
- 6) Agitate

Try reversing the order of addition, or increasing the amount of water if the combination is not compatible using the order listed above.

Note: After increasing the amount of water, if the mixture is found to be compatible, it will be necessary to recalibrate the sprayer for the higher volume application. Do not allow mixture to stand overnight.

Resistance: Some insects may develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or state pest management authorities for details.

If resistance to this product develops in your area, this product, or other products with similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and suspect that

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resistance is a reasonable cause, immediately consult your local company representative or pest management advisor for the best alternative method of control in your area.

Lawn Application Recommendations

Apply Bifen 7.9 SC as a broadcast treatment. For uniform control when applying to dense grass foliage, use volumes of up to 10 gallons per 1,000 square feet.

To ensure control of sub-surface pests, including but not limited to Mole Crickets, using low volume applications (less than 2 gallons per 1,000 square feet) immediately follow treatment with irrigation of treated area with at least 0.25 inches of water.

Application Rates

Under typical conditions, the application rates shown in the table below will provide control of the listed pests. Follow the application rates listed in the table below for typical pest pressure. Bifen 7.9 SC may be applied at up to 1 fl. oz. per 1000 square feet at the discretion of the applicator. Use the higher application rate for maximum residual control.

Pest	Application Rate	Application Instructions
Armyworms Cutworms Sod Webworm	0.18 - 0.25 fl. oz. per 1,000 sq. ft.	For best results, postpone watering (irrigation) or mowing for 24 hours after application. Higher treatment rates (up to 1 fluid oz. per 1000 square feet) may be necessary if high pest pressure exists and grass is maintained taller than 1 inch.
Annual Bluegrass Weevil (Hyperodes) (Adult) Banks Grass Mite Billbugs (Adult) Black Turfgrass Ataenius Adult Centipedes Chinch Bugs Crickets Earwigs Fleas (Adult) Grasshoppers Leafhoppers Mealybugs Millipedes Mites Pillbugs Sowbugs	0.25 - 0.5 fl. oz. per 1,000 sq. ft.	Annual Bluegrass Weevil (<i>Hyperodes</i>) adults: Treatment should be timed as they travel into grass away from their overwintering sites. Travel usually begins when <i>Forsythia</i> is in full bloom and concludes when flowering dogwood (<i>Cornus florida</i>) is in full bloom. For additional detailed information, check with your State Cooperative Extension Service. Billbug adults: Treatment should be made when adult billbugs are first noticed in April and May. To optimize treatment, degree day models have been developed. For additional detailed information, check with your State Cooperative Extension Service. Spring treatments for billbug adults will also offer control of over-wintered chinch bugs in temperate climates. Black Turfgrass Ataenius adults: To control the first and second generation of black turfgrass ataenius adults, respectively, treatments should take place in May and July. Time the May treatment to coincide with the full bloom stage of Vanhoutte spiraea (<i>Spiraea vanhoutte</i>) and horse chestnut (<i>Aesculus hippocastanum</i>). Time the July treatment to coincide with the blooming Rose of Sharon (<i>Hibiscus syriacus</i>). Chinch Bugs: Mostly found in the thatch layer, Chinch bugs infest the base of grass plants. In order to optimize the penetration of the insecticide to location of the chinch bugs, irrigation of the grass prior to treatment may be necessary. If the grass is kept at a long mowing height or if the thatch layer excessive, use higher volume treatments. It may be necessary to use higher application rates (up to 1 fluid oz. per 1000 square feet) to control Chinch Bug populations made up of both nymphs and adults in mid summer. Mites: Apply in combination with a labeled application rate of a surfactant to achieve optimal control of eriophyid mites. A second application may be needed, five to seven days after the first, to ensure optimal control.
Crane Flies ¹²	0.5 fl. oz. per 1,000 sq. ft.	Applications should be made August – February to control early to mid-season larvae as they feed on plant crowns. Applications made March – April to late-season larvae may aid in suppression.
Ants Fleas (Larvae) Imported Fire Ants Japanese Beetle	0.5 - 1.0 fl. oz. per 1,000 sq. ft.	Flea larvae: Flea larvae mature in shaded areas accessible to pets or other animals. When treating these areas use a higher volume treatment so that the insecticide penetrates into the soil. Note: If the lawn area is being treated with Bifen 7.9 SC at 0.25 fluid ounces per 1000 square feet for adult flea

<p>(Adult) Mole Cricket (Adult) Mole Cricket (Nymph) Ticks</p>		<p>control, then the larval application rate can be accomplished by a two- to four-fold increase in spray volume.</p> <p>Imported Fire Ants: For best control use broadcast treatments in combination with mound drenches. This will control present colonies along with foraging workers and newly mated fly-in queens. It is critical either to use high volume treatments or to irrigate prior to application if the soil is dry. Apply 1 fluid oz. per 1,000 square feet when using broadcast treatments. For mound drenches, dilute 1 teaspoon of Bifen 7.9 SC per gallon of water and use 1 to 2 gallons of finished spray per mound using sufficient force to penetrate the top and allow the emulsion to flood ant channels. Treat a four foot diameter around each ant mound. Application should be made in late evening or early morning when it is cooler (65-80°F). Note: A spray rig calibrated to apply 1 fluid oz. per 1,000 square feet of Bifen 7.9 SC in 5 gallons per 1,000 square feet contains the equivalent emulsion (1 teaspoon per gallon) required for fire ant mound drenches in the spray tank.</p> <p>Mole Cricket adults: Since the preferred grass areas are subject to constant invasion in early spring by the active adult stage, it can be difficult to maintain control of adult mole crickets. Make treatments as late in the day as possible and follow with up to 0.5 inches of water after treatment. To ensure maximum contact with the insecticide when the soil is dry, irrigate prior to treatment to bring the adult mole crickets closer to the soil surface. To Obtain optimal control of potential nymphal populations, the grass areas preferred by adult mole crickets in the should be treated immediately prior to peak hatch stage. (see below).</p> <p>Mole Cricket nymphs: To obtain optimal control of potential nymphal populations, the grass areas preferred by adult mole crickets in the spring should be treated immediately prior to peak hatch stage. Young nymphs are more vulnerable to insecticidal treatment at this stage because they are close to the soil surface where the insecticide is most effective. Use higher application rates and frequent applications to control larger, more damaging, nymphs later in the year. Make treatments as late in the day as possible and water immediately with up to 0.5 inches of water. To ensure maximum contact with the insecticide when the soil is dry, irrigate prior to treatment to bring the adult mole crickets closer to the soil surface.</p> <p>Ticks (including ticks that may transmit Lyme Disease and Rocky Mountain Spotted Fever): Make application to the entire area where contact with ticks may occur. Do not make spot treatments. When applying to areas with heavy leaf litter or dense ground cover use higher spray volumes. To attain and/or sustain control in times of high pest pressure, retreatments may be necessary; retreat only if signs of continued or renewed tick activity are present. Repeat treatments should not be made more often than once per seven days.</p> <p>Deer ticks (<i>Ixodes sp.</i>) have a four-stage life cycle spanning 2 years. Treat in the late fall and/or early spring to control adult ticks located on brush or grass above the soil surface and in mid to late spring to control larvae and nymphs that live in the soil and leaf litter.</p> <p>American dog ticks invade suburban settings in areas where residences and dwellings are constructed on former fields or wooded areas. These pests normally gather by paths or roadways where they are likely to find a host. To control tick larvae, nymphs and adults, treatments should take place, as needed, from mid spring to early fall.</p>
<p>In New York State:</p> <ol style="list-style-type: none"> 1. This product may not be applied to any grass or turf area within 100 feet of a water body (lake, pond, river, stream, wetland, or drainage ditch). 2. A single repeat application of Bifen 7.9 SC may be made if there are signs of renewed insect activity, but not sooner than two weeks after the first application. 		

Calculating Dilution Rates: To determine the proper dilution of Bifen 7.9 SC that is required to control specific pests, follow the steps below:

- 1) Determine the target pest requiring the highest application rate for effective control in the Application Rates chart.
- 2) Choose the treatment rate in terms of fluid oz. of Bifen 7.9 SC.
- 3) Determine the dilution volume necessary for the treatment in the Dilution Chart.
- 4) Use the proper amount of Bifen 7.9 SC that must be mixed in your desired volume of water as shown in the Dilution Chart.

For example, to control ticks the Application Rates table shows that 0.5 to 1.0 fluid ounces of Bifen 7.9 SC should be applied per 1,000 square feet. You select an application rate of 1.0 fluid oz. per 1,000 square feet because maximum residual control is desired. Your application volume is approximately 10 gallons per 1,000 sq. ft. Consulting the Lawn Dilution Chart reveals that you should dilute 1.0 fluid oz. of Bifen 7.9 SC in 10 gallons of water.

Lawn Application Dilution Chart

Application Volume	Application Rate	Fluid Ounces* of Bifen 7.9 SC Diluted to these Volumes of Finished Spray			
		1 gallon	5 gallons	10 gallons	100 gallons
1.0	0.18	0.18	0.90	1.8	18.0
1.0	0.25	0.25	1.25	2.5	25.0
1.0	0.5	0.5	2.5	5.0	50.0
1.0	1.0	1.0	5.0	10.0	100.0
2.0	0.18	-	0.45	0.90	9.0
2.0	0.25	0.13	0.63	1.25	12.5
2.0	0.5	0.25	1.25	2.5	25.0
2.0	1.0	0.5	2.5	5.0	50.0
3.0	0.18	-	0.30	0.60	6.0
3.0	0.25	-	0.42	0.83	8.3
3.0	0.5	0.17	0.83	1.67	16.7
3.0	1.0	0.33	1.67	3.33	33.3
4.0	0.18	-	0.23	0.45	4.5
4.0	0.25	-	0.31	0.63	6.3
4.0	0.5	0.13	0.63	1.25	12.5
4.0	1.0	0.25	1.25	2.5	25.0
5.0	0.18	-	0.18	0.36	3.6
5.0	0.25	-	0.25	0.5	5.0
5.0	0.5	0.1	0.5	1.0	10.0
5.0	1.0	0.2	1.0	2.0	20.0
10.0	0.18	-	-	0.18	1.8
10.0	0.25	-	0.13	0.25	2.5
10.0	0.5	-	0.25	0.5	5.0
10.0	1.0	0.1	0.5	1.0	10.0

*To convert to millimeters, multiply by 29.57

1 fluid ounce = 29.57 ml = 2 tablespoons = 6 teaspoons

Do not use household utensils to measure Bifen 7.9 SC.

Ornamentals and Trees Application Recommendations

Bifen 7.9 SC is for use on, but not limited to, trees, shrubs, ground covers, bedding plants, and foliage plants. Treat with 0.125 to 1.0 fl. oz. of Bifen 7.9 SC per 1,000 square feet or 5.4 to 43.5 fl. oz. per 100 gallons. Bifen 7.9 SC may be diluted and used in different volumes of water as long as the maximum label rate (1.0 fluid oz. per 1,000 square feet or 43.5 fl. oz. per 100 gallons) is not exceeded. If diluted with water or other carriers, Bifen 7.9 SC may be applied through low volume application equipment as long as the maximum label rate (1.0 fluid oz. per 1,000 square feet or 43.5 fl. oz. per 100 gallons) is not exceeded.

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Treat as a full coverage foliar spray using the stated application rate. If pest pressure and density of foliage increases, repeat treatments using higher rates may be needed to reach the desired control. Repeat treatments should not be made more often than once per 7 days.

Before application to entire planting, test treat a small number of plants and watch for signs of sensitivity. Some plant species may be sensitive to the final spray solution.

To avoid or delay pest resistance, it is recommended to use an alternate class of pesticide in any application program.

In the State of New York, for application uses outdoors on ornamentals and lawns in landscaped areas around residential, institutional, public, commercial and industrial buildings, parks, recreational areas and athletic fields:

The Following Precautionary Measures Must be Obeyed.

A 100 foot buffer must be maintained between the application site and the waters of the State. A 100 foot buffer is required for all waters except those entirely privately owned with no outlet to State waters. The buffer must consist of well maintained, established vegetation (i.e. grass, etc.) growth and must be maintained to prevent the development of channels.

In New York State, do make a single repeat application of this product if there are signs of renewed insect activity, but no sooner than two weeks after the first application.

Application Rates

Under typical conditions, the application rates in the table below will offer optimal control of the listed pests. Bifen 7.9 SC may be applied at up to 1 fl. oz. per 1000 square feet (43.5 oz. per 100 gallons) at the discretion of the applicator. When maximum residual control is preferred, use the higher treatment rates.

Pest	Application Rate	Application Instructions
Bagworms Cutworms Elm Leaf Beetles Fall Webworms Gypsy Moth Caterpillars Lace Bugs Leaf Feeding Caterpillars Tent Caterpillars	0.125 - 0.25 fl. oz. per 1,000 sq. ft. (5.4 - 10.8 fl. oz. per 100 gal.)	Bagworms: For optimum control treat when larvae have started to hatch and are young, directing spray to contact as many larvae as possible.
Adelgids† Ants Aphids Bees Beet Armyworm Beetles† Black Vine Weevil (Adults) Brown Soft Scales Broad Mites Budworms California Red Scale (Crawlers) Centipedes Cicadas† Citrus Thrips Clover Mites Crickets Diaprepes (Adults) Earwigs European Red Mite Flea Beetles Fungus Gnats (Adults) Grasshoppers	0.25 - 0.5 fl. oz. per 1,000 sq. ft. (10.8 - 21.7 fl. oz. per 100 gal.)	Beetles, Scale Crawlers, Twig Borers, and Weevils: Apply to plant foliage; also treat trunks, stems and twigs.

Japanese Beetle (Adult) [†] Leafhoppers Leafrollers Mealybugs Millipedes Mites Mosquitoes Orchid Weevil Pillbugs Pine Needle Scales (Crawlers) Plant Bugs (Including <i>Lygus</i> spp.) Psyllids [†] San Jose Scales (Crawlers) Scorpions Sowbugs Spider Mites Spiders Spittlebugs [†] Thrips Tip Moths Treehoppers [†] Twig Borers Wasps Weevils Whiteflies		
Imported Fire Ants** Leafminers Pecan Leaf Scorch Mite Pine Shoot Beetle (Adults) Spider Mites	0.5 - 1.0 fl. oz. per 1,000 sq. ft. (21.7 - 43.5 fl. oz. per 100 gal.)	Spider Mites: Apply during spring and summer for most effective control of twospotted spider mites. During mid- to late-summer it may be necessary to make more frequent treatments, possibly at higher rates to achieve suitable control. Control may be enhanced by adding a surfactant or horticultural oil or by combining Bifen 7.9 SC with other products registered to control mites. Applications of Bifen 7.9 SC may be alternated with chemicals offering other modes of action in programs that are designed to manage resistance by twospotted spider mites. For recommendations on resistance management in your region check with your local Cooperative Extension Service.
**For foraging ants. [†] Not for use in California.		

Calculating Dilution Rates: To determine the proper dilution of Bifen 7.9 SC that is required to control specific pests, follow the steps below:

- 1) Determine the target pest requiring the highest application rate for effective control in the **Application Rates** chart.
- 2) Choose the treatment rate in terms of fluid oz. of Bifen 7.9 SC.
- 3) Determine the dilution volume necessary for the treatment in the **Dilution Chart**.
- 4) Use the proper amount of Bifen 7.9 SC that must be mixed in your desired volume of water as shown in the **Dilution Chart**.

For example, to control black vine weevil adults on rhododendron, the Application Rates table shows that 0.25 to 0.5 fluid ounces of Bifen 7.9 SC should be applied per 1,000 square feet. You select an application rate of 0.5 fluid oz. per 1,000 square feet because maximum residual control is desired. Your application volume is approximately 300 gallons per acre, which is equivalent to 6.9 gallons per 1,000 square feet. Consulting the Ornamental Dilution Chart reveals that you should dilute 0.72 fluid oz. of Bifen 7.9 SC in 10 gallons of water.

Ornamental Application Dilution Chart

Application Volume Gallons Per		Application Rate Fl. oz. per	Fluid Ounces* of Bifen 7.9 SC Diluted to these Volumes of Finished Spray			
1,000 sq. ft.	Acre	1,000 sq. ft.	1 gallon	5 gallons	10 gallons	100 gallons
2.3	100	0.125	-	0.27	0.54	5.4
2.3	100	0.25	0.11	0.54	1.08	10.8
2.3	100	0.5	0.22	1.09	2.17	21.7
2.3	100	1.0	0.44	2.17	4.35	43.5
4.6	200	0.125	-	0.14	0.27	2.7
4.6	200	0.25	-	0.27	0.54	5.4
4.6	200	0.5	0.11	0.54	1.09	10.9
4.6	200	1.0	0.22	1.09	2.17	21.7
6.9	300	0.125	-	-	0.18	1.8
6.9	300	0.25	-	0.18	0.36	3.6
6.9	300	0.5	-	0.36	0.72	7.2
6.9	300	1.0	0.15	0.72	1.45	14.5

*To convert to millimeters, multiply by 29.57
 300 gallons per acre is a typical application volume for landscape ornamental applications.
 1 fluid ounce = 29.57 ml = 2 tablespoons = 6 teaspoons
 Do not use household utensils to measure Bifen 7.9 SC.

Pest Control on Outside Surfaces and Around Buildings

Bifen 7.9 SC may be used to control the following pests:

Ants	Clover Mites	Grasshoppers	Silverfish
Carpenter Ants	Crickets	Hornets	Sod Webworms
Fire Ants	Cutworms	Japanese Beetles [†]	Sowbugs (Pillbugs)
Armyworms	Dichondra Flea	Midges	Spider Mites
Bees	Beetles	Millipedes	Spiders (including
Beetles	Earwigs	Mosquitoes	Black Widow
Biting Flies	Elm Leaf Beetles	Moths	Spiders)
Boxelder Bugs	Firebrats	Roaches	Springtails
Centipedes	Fleas	(including	Ticks (including
Chiggers	Flies	Cockroaches)	Brown Dog Ticks)
Chinch Bugs	Gnats	Scorpions	Wasps

[†]Not for use in California.

All outdoor applications must be limited to spot or crack-and-crevice treatments only, except for the following permitted uses:

1. Treatment to soil or vegetation around structure;
2. Applications to lawns, turf, and other vegetation;
3. Applications to building foundations, up to a maximum height of 3 feet.

Other than applications to building foundations, all outdoor applications to impervious surfaces such as sidewalks, driveways, patios, porches and structural surfaces (such as windows, doors, and eaves) are limited to spot and crack-and-crevice applications only.

The following procedures must be followed to help achieve maximum control of the pest.

Applications to vertical exterior surfaces (e.g., foundations) are permitted to a maximum height of 3 feet from ground level. Sections of vertical exterior surfaces that abut non-porous horizontal surfaces can only be treated if either 1) these sections are protected from rainfall and spray from sprinklers or 2) they do not drain into a sewer, storm drain, or curbside gutter (e.g., not to sections that abut driveways or sidewalks that drain into streets).

Application Recommendations

Use a 0.02 to 0.06% dilution to spray outside surfaces of buildings including, but not limited to, exterior siding, foundations, porches, window frames, eaves, patios, garages, refuse dumps, lawns such as grass areas adjacent or around private homes, duplexes, townhouses, condominiums, house trailers, apartment complexes, carports, garages, fence lines, storage sheds, barns, and other residential and non-commercial structures, soil, trunks of woody ornamentals and other areas where pests congregate or have been seen. Use a spray volume of up to 10 gallons of dilution per 1,000 square feet. Use higher application volumes if vegetation or landscape materials are dense.

Mixing Directions: For 0.02% suspension, mix 0.33 fluid oz. of Bifen 7.9 SC per gallon of water. For 0.06% suspension, mix 1 fluid oz. Bifen 7.9 SC per gallon of water (1 fluid oz. = 2 tablespoons). Do not use household utensils to measure Bifen 7.9 SC. Use the higher rates for heavy pest infestation, quicker knockdown or longer residual control. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Repeat application only if there are signs of renewed insect activity. Repeat application limited to once per seven days.

Perimeter Treatment: Treat a band of soil and vegetation 6 to 10 feet wide around and next to the structure and the foundation of the structure to a height of 2 to 3 feet. Use 0.33 to 1.0 fluid oz. of Bifen 7.9 SC per 1,000 square feet in enough water to provide sufficient coverage (refer to Perimeter Application Dilution Chart).

For sections of foundation that abut non-porous horizontal surfaces, the treated areas must be protected from rainfall and spray from sprinklers or they do not drain into a sewer, storm drain, or curbside gutter (e.g. not to sections that abut driveways or sidewalks that drain into streets).

For Ant and Fire Ant Mounds use Bifen 7.9 SC 0.06% dilution as Drench Method: Use 1-2 gallons of dilution for each mound area. Sprinkle the mound until wet and apply to a 4 foot diameter circle around the mound. For mounds larger than 12", use a higher volume. Applications should be made in cool weather, such as in early morning or late evening hours, not in the heat of the day.

Mosquito Control: To control mosquitoes around buildings, landscapes, and lawns, dilute 0.33 to 1.0 fl. oz. of Bifen 7.9 SC per gallon of water and apply at the rate of one gallon of dilution per 1,000 square feet as a general spray. Bifen 7.9 SC may be diluted at lower concentrations and applied at higher volumes to ensure the proper amount of product per area (refer to the Ornamental or Perimeter Application Dilution Charts).

Calculating Dilution Rates: The following steps should be taken to determine the appropriate dilution of Bifen 7.9 SC that is required to control specific pests:

- 1) Select an application rate in of fluid oz. of Bifen 7.9 SC.
- 2) Determine your application volume and amount of spray mix you want to prepare in the Dilution Chart.
- 3) Use the Dilution Chart to determine the appropriate volume of Bifen 7.9 SC that must be mixed in your desired volume of water.

Perimeter Application Dilution Chart

Application Volume Gallons Per	Application Rate Fluid Ounces Per	Fluid Ounces* of Bifen 7.9 SC Diluted to these Volumes of Finished Spray			
		1 gallon	5 gallons	10 gallons	100 gallons
1000 sq. ft.	1000 sq. ft.				
1	0.33	0.33	1.67	3.33	33.3
1	0.5	0.5	2.5	5.0	50.0
1	0.67	0.67	3.33	6.67	66.7
1	0.75	0.75	3.75	7.5	75.0
1	1.0	1.0	5.0	10.0	100.0
2	0.33	0.17	0.83	1.65	16.5
2	0.5	0.25	1.25	2.5	25.0
2	0.67	0.33	1.67	3.35	33.5
2	0.75	0.38	1.88	3.75	37.5
2	1.0	0.5	2.5	5.0	50.0

3	0.33	0.11	0.55	1.10	11.0
3	0.5	0.17	0.83	1.67	16.7
3	0.67	0.22	1.11	2.23	22.3
3	0.75	0.25	1.25	2.5	25.0
3	1.0	0.33	1.67	3.33	33.3
4	0.33	-	0.41	0.83	8.3
4	0.5	0.13	0.63	1.25	12.5
4	0.67	0.17	0.84	1.67	16.7
4	0.75	0.19	0.94	1.88	18.8
4	1.0	0.25	1.25	2.5	25.0
5	0.33	-	0.33	0.67	6.7
5	0.5	0.1	0.5	1.0	10.0
5	0.67	0.13	0.67	1.33	13.3
5	0.75	0.15	0.75	1.5	15.0
5	1.0	0.2	1.0	2.0	20.0
10	0.33	-	0.17	0.33	3.3
10	0.5	-	0.25	0.5	5.0
10	0.67	-	0.33	0.67	6.7
10	0.75	-	0.38	0.75	7.5
10	1.0	0.1	0.5	1.0	10.0

*To convert to milliliters, multiply by 29.57

1 fluid oz. = 29.57 ml = 2 tablespoons = 6 teaspoons

Do not use household utensils to measure Bifen 7.9 SC.

INDOOR USE

Bifen 7.9 SC may be used for residual pest control in buildings and structures and on modes of transport. For control of ants, bees, beetles, boxelder bugs, carpet beetles, centipedes, clothes moths, cockroaches, crickets, earwigs, firebrats, flies, gnats, midges, millipedes, pillbugs, scorpions, silverfish, sowbugs, spiders, ticks and wasps.

In the home, all food processing surfaces and utensils should be covered during treatment or thoroughly washed before reuse. Exposed food should be covered or removed. Do not permit humans or pets to contact treated surfaces until the spray has dried. During any overhead applications to overhead interior areas of structures, cover surfaces below with plastic sheeting or similar materials.

Wear protective clothing, unvented goggles, gloves and respirator when applying to overhead areas in poorly ventilated areas. Avoid touching sprayed surfaces until sprays have completely dried.

Application Recommendations

Apply to areas where pests hide. These areas include, but are not limited to, baseboards, corners, storage areas, closets, around water pipes, doors and windows, attics and eaves, behind and under refrigerators, cabinets, sinks, furnaces, stoves, the underside of shelves, drawers and similar areas. Treat with a low-pressure spray (25 psi or less), coarse, crack and crevice, pinstream, spot or with a paint brush. Pay close attention to cracks and crevices. Not for use as a space spray.

Mixing Directions: Prepare a dilution of Bifen 7.9 SC for spray or brush application. See mixing directions in "Pest Control on Outside Surfaces and Around Buildings" section (page XX).

- Fill sprayer with the required amount of water.
- Add Bifen 7.9 SC.
- Close sprayer and shake to ensure proper mixing.
- Prepare only the amount of solution necessary for treatment.

In order to achieve and/or maintain control in times of high pest pressure, retreatment may be needed. Repeat application should only take place if there are signs of renewed insect activity and should not exceed one application per 7 days.

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Application Rates: For 0.02% suspension, mix 0.33 fluid oz. of Bifen 7.9 SC per gallon of water. For 0.06% suspension, mix 1 fluid oz. Bifen 7.9 SC per gallon of water (1 fluid oz. = 2 tablespoons). Do not use household utensils to measure Bifen 7.9 SC. Use the higher rates for heavy pest infestation, quicker knockdown or longer residual control.

Pest	Application Rate	Application Instructions
Ants Bedbugs Bees Beetles Boxelder bugs Carpet beetles Centipedes Clothes moths Cockroaches Crickets Earwigs Firebrats Flies Gnats Midges Millipedes Pillbugs Scorpions Silverfish Sowbugs Spiders Ticks Wasps	0.33 – 1.0 fl. oz. per gallon of water (0.02% - 0.06% suspension)	<p>Ants: Apply to ant trails, around doors and windows and other places that ant frequent.</p> <p>Bedbugs: To help control of Bedbugs, apply thoroughly to crack and crevices where bedbugs frequent. This includes bed frames, box springs, inside empty dressers and clothes closets, carpet edges, wall moldings (high and low), and wallpaper edges. Do not use on bed linens, pillows, mattresses, or clothes. Before application, remove all clothes and other articles from dressers or clothes closets. Allow all treated areas to dry before use. Not recommended for use as sole protection against bedbugs. If evidence of bedbugs is found in/on mattresses, use a product approved for this use.</p> <p>Bees and Wasps: Apply to nest in late evening when pests are at rest. Spray nests and surrounding areas thoroughly. Spray nests, entrances to nests and surrounding areas thoroughly. Contact as many insects as possible. Retreat if signs of renewed activity exist.</p> <p>Boxelder Bugs, Centipedes, Earwigs, Beetles, Millipedes, Pillbugs, and Sowbugs: Treat around doors, windows, baseboards, storage areas and other locations where pests may be found.</p> <p>Cockroaches, Crickets, Firebrats, Scorpions, Silverfish, Spiders, and Ticks: Use a coarse, low pressure spray to areas where pests hide. These areas include baseboards, corners, storage areas, closets, around water pipes, doors and windows, attics and eaves, behind and under refrigerators, cabinets, sinks, furnaces, and stoves, the underside of shelves, drawers, and similar areas. Pay close attention to cracks and crevices.</p>

Food/Feed Handling Establishments

Bifen 7.9 SC, when used as a general spot, surface, or crack and crevice treatment, may be applied in both food/feed and nonfood areas of food/feed handling establishments.

Food/feed handling establishments are any place other than private residences where exposed food/feed is held, processed, prepared or served, including areas for receiving, storing, packing (canning, bottling, wrapping, boxing), preparing, enclosed processing systems (mills, dairies, edible oils, syrups) of food and edible waste storage. Serving areas where food is exposed and the facility is in operation are also considered food areas.

Non-food areas in which applications are allowed include garbage rooms, lavatories, floor drains (to sewers), entries and vestibules, offices, locker rooms, machine rooms, garages, mop closets and storage (after canning or bottling).

Some of the use sites that are allowed include: Aircraft (do not use in aircraft cabins), apartment buildings, bakeries, bottling facilities, breweries, buses, cafeterias, candy plants, canneries, dairy product processing plants, food manufacturing plants, food processing plants, food service establishments, granaries, grain mills, hospitals, hotels, industrial buildings, laboratories, meat/poultry/egg processing plants, mobile/motor homes, nursing homes, offices, railcars, restaurants, schools, ships, trailers, trucks, vessels, warehouses and wineries.

General Surface Application: Do not use this application method in food/feed handling establishments when the facility is in operation or foods/feeds are exposed. During treatment, remove or cover all food processing and/or handling equipment and do not apply directly to food products. All equipment, benches, shelving and other surfaces in food processing plants, bakeries, cafeterias, and other facilities, which food will contact must be washed after treatment. Clean food handling equipment or processing equipment and rinse completely with fresh, clean water.

Spot, Crack and Crevice Application: These types of treatments can be done when the facility is operating, but food should be covered or removed from the treatment area. Do not apply directly to food.

Foam Applications: Converting Bifen 7.9 SC to foam will allow it to be used to treat structural voids. To produce a 0.02% to 0.06% foam concentration, dilute 0.33 to 1.0 fl. oz. of Bifen 7.9 SC per gallon of water and add the manufacturer's recommended amount of foaming agent. Before application, make sure that the foaming agent is compatible with Bifen 7.9 SC.

TERMITE CONTROL (ABOVE GROUND ONLY)

The treatment methods that are expressed below are intended to kill termite workers or winged reproductives present at the time of application. These methods should supplement, not substitute for, mechanical alteration, soil treatment or foundation treatment.

Controlling winged reproductive termites and exposed workers in localized areas can be accomplished by diluting 1.0 fluid ounce of Bifen 7.9 SC per gallon of water and applying the dilution at the rate of one gallon per 1,000 square feet to attics, crawl spaces, unfinished basements and other void areas as a coarse fan spray. Both swarming termites and the areas where they gather should be treated.

Controlling above-ground termites in localized areas of infested wood may be accomplished by diluting 1.0 fluid oz. of Bifen 7.9 SC per gallon of water and applying as a liquid or foam to voids and galleries in wood that is damaged, in addition to spaces between wooden structural members and between the sill plate and foundation where the wood is at risk to attack. Drilling and then injecting the foam or dilution into damaged wood or wall voids with an appropriate directional injector will help reach those areas that are not easy to access. After treatment is completed, securely plug the holes that are in regularly occupied areas in the construction elements.

Controlling termite carton nests in building voids can be accomplished by diluting 1.0 fluid oz. of Bifen 7.9 SC per gallon of water and apply as a liquid or foam using a pointed injection tool. To obtain control, various depths of injection and numerous injection points may be needed. After treatment is complete and when feasible, remove the carton nest material from the building void.

ANT CONTROL

Nuisance Ants Indoors: Apply to ant nests for best results. Apply a dilution of 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per gallon of water at the rate of one gallon of dilution per 1,000 square feet to places where ants have been seen or are believed to forage as a general surface, crack and crevice or spot treatment. Some of these areas include, but are not limited to, baseboards, in and behind cabinets, under and behind dishwashers, furnaces, refrigerators, sinks and stoves, around pipes, cracks and crevices and in corners. Pay close attention when treating entry points into the home or around doors and windows. When combining liquid Bifen 7.9 SC treatments with bait treatments, use Bifen 7.9 SC as instructed above and apply baits in those areas where Bifen 7.9 SC has not been applied. Do not apply as a broadcast or general surface treatment in residential areas.

Nuisance Ants Outdoors: Apply to ant nests for best results. Treat ant trails, around doors and windows, and other places where ants have been seen or are likely to forage. Treat using a low or high volume perimeter treatment depending on the density of vegetation and landscape materials as described in the "Pest Control on Outside Surfaces and Around Buildings" section of this label. When treating concrete surfaces, more frequent treatments, higher dilutions and/or application volumes may be needed for ant control. The following procedure will normally allow optimal control:

1. Non-porous surfaces should be treated with low volume applications using 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per gallon of water and applying this dilution at the rate of one gallon per 1,000 square feet.
2. Vegetation and porous surfaces should be treated with high volume applications using dilutions that are calculated to deliver 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per 1,000 square feet (refer to the Ornamental and Perimeter Application Dilution Charts).
3. Dilute 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per gallon of water and apply at a rate of up to 10 gallons of dilution per 1,000 square feet for maximum residual control.

Carpenter Ants Indoors: Treat areas where carpenter ants are seen or are predicted to forage, such as baseboards, in and behind cabinets, under and behind dishwashers, furnaces, refrigerators, sinks, and stoves, around pipes, cracks and crevices, and in corners by diluting 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per gallon of water and applying

at the rate of one gallon of dilution per 1,000 square feet as a general surface, crack and crevice or spot and/or foam treatment. Pay close attention to treating entry points into the home or premises such as around doors and windows. Spray or foam into cracks into crevices or drill holes and spray, mist or foam into voids and galleries where carpenter ants or their nests are present. When combining liquid Bifen 7.9 SC treatments with bait treatments, use Bifen 7.9 SC as instructed above and apply baits in those areas where Bifen 7.9 SC has not been applied. Do not apply as a broadcast or general surface treatment in residential areas.

Carpenter Ants Outdoors: Treat carpenter ant nests for best results. Treat areas where carpenter ants are seen or are believed to forage, such as ant trails, around doors and windows. As stated in "Pest Control on Outside Surfaces and Around Buildings" section, apply using a low or high volume perimeter treatment of this label. When treating concrete surfaces, more frequent treatments, higher dilution and/or application volumes may be needed for carpenter ant control. Following the procedure below will normally allow optimal control:

1. Treat non-porous surfaces with low volume applications using 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per gallon of water and applying this dilution at the rate of one gallon per 1,000 square feet.
2. Bifen 7.9 SC may be used as a treatment for the trunks of trees that have carpenter ant trails, or where carpenter ants are foraging. Use 0.5 to 1.0 fl. oz. of Bifen 7.9 SC per gallon of water and apply this dilution to wet the bark from the base of the tree to as high as possible on the trunk.
3. Vegetation and porous surfaces should be treated with high volume applications using dilutions that are calculated to deliver 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per 1,000 square feet (refer to the Ornamental and Perimeter Application Dilution Charts).
4. Dilute 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per gallon of water and apply at a rate of up to 10 gallons of dilution per 1,000 to obtain maximum residual control.

To control carpenter ants inside trees, utility poles, fencing or deck materials and similar structural members, drill to find the inside infested cavity and inject or foam a 0.06% dilution (1.0 fl. oz. of Bifen 7.9 SC per gallon of water) into the cavity with adequate volume and a proper treatment tool with a splash-back guard.

Where there are ants tunneling below the surface, dilute 0.5 to 1.0 fluid ounces of Bifen 7.9 SC per gallon of water and applying as a drench or inject the dilution or foam at intervals of 8 to 12 inches. A uniform vertical barrier should be established where there are ants tunneling below surfaces such as at the edges of walls, driveways or other hard surfaces.

Apply a 0.06% dilution to stored lumber or wood piles using a sprinkling can or a hose-end sprayer to deliver a coarse drenching spray. This wood may be used for lumber or burned after 30 days. Do not use this method of application in structures.

The soil under the area where firewood will be stacked may be treated with a dilution of 1.0 fluid oz. of Bifen 7.9 SC per gallon of water to protect the firewood from carpenter ants (and termites). Apply at the rate of one gallon of dilution per 8 square feet. DO NOT treat firewood with this product.

STORAGE AND DISPOSAL

Prohibitions: Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Keep out of reach of children and animals. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use replace lids and close tightly. Do not put concentrate or dilute material into food or drink container.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills.

To Confine Spill: If liquid, dike surrounding area or absorb with sand, cat litter, or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Pesticide Disposal: Pesticide wastes are toxic. Do not contaminate water, food, or feed by storage or disposal.

Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. Dispose of excess or waste pesticide by use according to label directions, or contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal: Non-refillable containers. Do not reuse or refill this container. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows:

Non-refillable container less than or equal to 5 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Non-refillable container greater than 5 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows (all sizes): Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Refillable container: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

To clean the container before final disposal, empty the remaining contents from the container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing process two more times.

For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC 1-800-424-9300.

[Use Directions for Tip-N-Measure Container]

1. Remove the measuring chamber cap and induction seal. Replace the cap and securely tighten. Tip container until liquid fills measuring chamber.
2. Return container to level position. No adjustment is needed.
3. Remove measuring chamber cap and dispense into proper application equipment.

For multiple dose measuring, remove fill chamber cap and dispense according to markings on side of bottle.]

[Use Directions for Squeeze-N-Measure Container]

1. Remove the measuring chamber cap and induction seal.
2. Replace cap loosely on measuring chamber to allow venting.
3. Squeeze container gently until liquid fills measuring chamber
4. Remove measuring chamber cap and dispense into proper application equipment.
5. Replace cap onto measuring chamber and tighten]

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

BEFORE BUYING OR USING THIS PRODUCT, read the entire Directions for Use and the following Conditions of Sale and Limitation of Warranty and Liability. By buying or using this product, the buyer or user accepts the following Conditions of Sale and Limitation of Warranty and Liability, which no employee or agent of TACOMA AG, LLC or the seller is authorized to vary in any way.

Follow the Directions for Use of this product carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop or other plant injury, ineffectiveness, or other unintended consequences may result from such risks as weather or crop conditions, mixture with other chemicals not specifically identified in this products label, or use of this product contrary to the label instructions, all of which are beyond the control of TACOMA AG, LLC and the seller. The buyer or user of this product assumes all such inherent risks.

Subject to the foregoing inherent risks, TACOMA AG, LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use when the product is used in strict accordance with such Directions for Use under normal conditions of use. EXCEPT AS WARRANTED IN THIS LABEL, THIS PRODUCT IS SOLD AS IS TO THE EXTENT ALLOWED BY APPLICABLE LAW. TACOMA AG, LLC MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ELIGIBILITY OF THIS PRODUCT FOR ANY PARTICULAR TRADE USAGE.

TO THE EXTENT ALLOWED BY APPLICABLE LAW, THE BUYERS OR USERS EXCLUSIVE REMEDY FOR ANY INJURY, LOSS, OR DAMAGE RESULTING FROM THE HANDLING OR USE OF THIS PRODUCT, INCLUDING BUT NOT LIMITED TO CLAIMS OF BREACH OF WARRANTY OR CONTRACT, NEGLIGENCE, STRICT LIABILITY, OR OTHER TORTS, SHALL BE LIMITED TO ONE OF THE FOLLOWING, AT THE ELECTION OF TACOMA AG, LLC OR THE SELLER: DIRECT DAMAGES NOT

EXCEEDING THE PURCHASE PRICE OF THE PRODUCT OR REPLACEMENT OF THE PRODUCT. TO THE EXTENT ALLOWED BY APPLICABLE LAW, TACOMA AG, LLC AND THE SELLER SHALL NOT BE LIABLE TO THE BUYER OR USER OF THIS PRODUCT FOR ANY CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES, OR DAMAGES IN THE NATURE OF A PENALTY.

Actisol® is a registered trademark of Environmental Delivery Systems, Inc.

Delavan® is a registered trademark of Delavan Spray, LLC.

Firstline® is a registered trademark of FMC Corporation.

Patriot Injector® is a registered trademark of Unifix USA, LLC.

Raindrop® is a registered trademark of GP Companies, Inc.

TeeJet® is a registered trademark of Spraying Systems Company.

EPA Reg. No. 83520-3

EPA Est. No. XXXXX-XX-XXX

Net Contents: _____

Manufactured by:
Tacoma AG, LLC
P.O. Box 14073
Durham, NC 27709

FAST-TRACK AMENDMENTS-Completeness Screening Checklist

Experts In-Processing Signature: Schubert 12/1/11

EPA Reg. Number: 83520-3

EPA Receipt Date: 11/29/11

	Check List Item	Yes	No	NA
1	Application Form (EPA Form 8570-1) - signed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Confidential Statement of Formula (EPA Form 8570-29) - signed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Certification with Respect to Citation of Data (EPA Form 8570-34) signed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Formulator's Exemption Statement (EPA Form 8570-27) - signed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5	Data Matrix (EPA Form 8570-35) [Applicable, for adding me-too uses]	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	a) Selective Method?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b) Cite-All Method? Applicant owns data or list only the companies offered to pay	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c) Public copy of Matrix provided? See PR Notice 98-5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Is Label Included? (5 copies)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:				



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

November 30, 2011

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

JANE M. MILLER
BIOLOGIC, INC.
TACOMA AG, LLC
115 OBTUSE HILL ROAD
BROOKFIELD, CT 06804-

PRODUCT NAME: BIFEN 7.9 SC
COMPANY NAME: TACOMA AG, LLC
OPP IDENTIFICATION NUMBER:
EPA FILE SYMBOL: 83520-3
EPA RECEIPT DATE: 11/29/11

SUBJECT: RECEIPT OF AMENDMENT

DEAR REGISTRANT:

The Office of Pesticide Programs has received your application for an amendment and it has passed an administrative screen for completeness.

During the initial screen we determined that the application appears to qualify for fast track review. The package will now be forwarded to the Product Manager for review to determine its acceptability for fast track status.

If you have any questions, please contact Registration Division, Risk Management Team 13, at (703) 305-0120.

Sincerely,

H. K. Moser
Front End Processing Staff
Information Services Branch
Information Technology & Resources Management Division

Fee for Service

{907611Ã~

This package includes the following

☐ New Registration

☒ Amendment

☐ Studies? ☐ Fee Waiver?

☐ volpay % Reduction: ____

for Division

☐ AD

☐ BPPD

☒ RD

Risk Mgr.

13

Receipt No.

S-

907611

EPA File Symbol/Reg. No.

83520-3

Pin-Punch Date:

11/29/2011



This item is NOT subject to FFS action.

Action Code:

Requested:

Granted:

Amount Due: \$ ____

Parent/Child Decisions:

☒ Inert Cleared for Intended Use

☐ Uncleared Inert in Product

Reviewer:

Venus Ego

Date:

11/30/11

Remarks:



United States
Environmental Protection Agency
Washington, DC 20460

☐ Registration
☒ Amendment
☐ Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number 83520-3	2. EPA Product Manager R. Gebken	3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Bifen 7.9 SC	PM# 10	
5. Name and Address of Applicant (Include ZIP Code) Tacoma AG, LLC c/o Biologic, Inc. 115 Obtuse Hill Road Brookfield, CT 06804 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

Section - II

<input checked="" type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

This is an amendment to: 1) revised labeling to comply with the State of California Department of Pesticide Regulation's Bifenthrin Label Amendment Memorandum of Agreement, and 2) revised labeling to address the Pyrethroid Labeling Letter. This action will not fall within PRIA and should be completed in 90 days.

Jane M. Miller - Tel: 203-740-1200; Fax: 203-740-1220; Email: jmill@biologicconsulting.com

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Metal	
				<input type="checkbox"/> Plastic	
				<input type="checkbox"/> Glass	
				<input type="checkbox"/> Paper	
				<input type="checkbox"/> Other (Specify) _____	
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container	5. Location of Label Directions <input type="checkbox"/>		
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input type="checkbox"/> Other _____			

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)			
Name Jane M. Miller	Title Agent	Telephone No. (Include Area Code) (203) 740-1200	
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment both under applicable law.			6. Date Application Received (Stamped)
2. Signature 	3. Title Agent		
4. Typed Name Jane M. Miller	5. Date November 20, 2011		

November 20, 2011

Document Processing Desk (AMEND)
Office of Pesticide Programs (7504P)
US Environmental Protection Agency
One Potomac Yard
2777 S. Crystal Drive
Room S-4900, 4th Floor
Arlington, VA 22202

Attention: Mr. Richard Gebken (PM #10)

RE: "Bifen 7.9 SC", EPA Reg. No.83520-3
Application for Pesticide Amendment – Revise label language as per Agreement Reached
with the State of California and to Comply with the Pyrethroid Labeling Letter Dated
June 4, 2009

Dear Mr. Gebken:

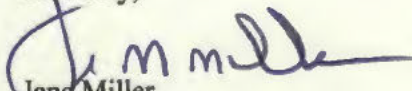
On behalf of Tacoma AG, LLC we are submitting: 1) revised labeling to comply with the State of California Department of Pesticide Regulation's Bifenthrin Label Amendment Memorandum of Agreement, and 2) revised labeling to address the Pyrethroid Labeling Letter.

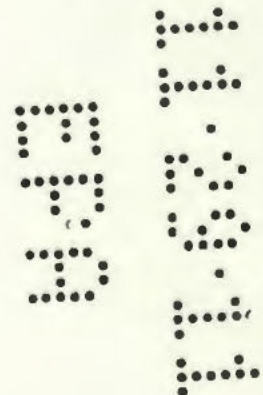
The following documents are enclosed as replacement for the ones sent November 1, 2011 and are to process this Amendment action:

1. Application for Pesticide Amendment (EPA Form 8570-1)
2. One (1) copy of MARKED labeling with the added text underlined.
3. Three (3) copies of clean product labeling

Should you have any questions, or wish to reach me, please feel free to contact our office at 203-740-1200.

Sincerely,


Jane Miller
Agent to Tacoma AG, LLC





4A 11

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Jane Miller
Agent to Axss USA, LLC
1100 Platte Falls Road
Platte City, MO 64079

JUN 2 2009

Subject: Label Notification(s) for Pesticide Registration Notice 2007-4

Dear Ms. Miller:

The Agency is in receipt of your Application(s) for Pesticide Notification under Pesticide Registration Notices (PRN) 2007-4 dated April 30, 2009 for:

EPA Registration 83520-3

Bifen 7.9 SC

The Registration Division (RD) has conducted a review of this request for applicability under PR Notices 2007-4 and finds that the label changes requested falls within the scope of PR Notices 2007-4. The label has been date-stamped "Notification" and will be placed in our records.

Please be reminded that 40 CFR Part 156.140(a)(4) requires that a batch code, lot number, or other code identifying the batch of the pesticide distributed and sold be placed on nonrefillable containers. The code may appear either on the label (and can be added by non-notification/PR Notice 98-10) or durably marked on the container itself.

If you have any questions, please contact me directly at 703-305-6249 or Nicole Williams of my staff at 703-308-5551.

Sincerely,

A handwritten signature in black ink, appearing to read "Linda Arrington".

Linda Arrington
Notifications & Minor Formulations Team Leader
Registration Division (7505P)
Office of Pesticide Programs

	United States	<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other	OPP Identifier Number
	Environmental Protection Agency		
	Washington, DC 20460		

Application for Pesticide - Section I

1. Company/Product Number 83520-3	2. EPA Product Manager R. Gebken	3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Bifen 7.9 SC	PM# 13	
5. Name and Address of Applicant (Include ZIP Code) Axss USA, LLC 1100 Platte Falls Road Platte City, MO 64079 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: NOTIFICATION EPA Reg. No. _____ Product Name _____ JUN 02 2009	

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input checked="" type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

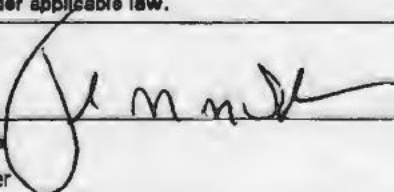
Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Notification of label change per PR Notice 2007-4. This notification is consistent with the guidance in PR Notice 2007-4 and the requirements of EPA's regulations at 40 CFR 156.10, 156.140, 156.144, 156.146, and 156.156. No other changes have been made to the labeling or the Confidential Statement of Formula for this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if the amended label is not consistent with the requirements 40 CFR 156.10, 156.140, 156.144, 156.146, and 156.156, this product may be in violation of FIFRA and may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Metal	
				<input checked="" type="checkbox"/> Plastic	
				<input type="checkbox"/> Glass	
				<input type="checkbox"/> Paper	
				<input type="checkbox"/> Other (Specify) _____	
* Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt.	No. per container
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 5, 15, 30 gal.		5. Location of Label Directions <input checked="" type="checkbox"/>	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled				<input type="checkbox"/> Other _____	

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)			
Name Jane M. Miller		Title Agent	
		Telephone No. (Include Area Code) (203) 740-1200	
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			6. Date Application Received (Stamped)
2. Signature 		3. Title Agent	
4. Typed Name Jane M. Miller		5. Date May 29, 2009	

April 30, 2009

Document Processing Desk (NOTIF)
Office of Pesticide Programs (7504P)
US Environmental Protection Agency
One Potomac Yard
2777 S. Crystal Drive
Room S-4900, 4th Floor
Arlington, VA 22202

Attention: Mr. Richard Gebken(PM #13)

RE: "Bifen 7.9 SC"; EPA Reg. No. 83520-3
Notification to revise Storage and Disposal Statement

Dear Mr. Gebken:

On behalf of Axss USA, LLC please find enclosed a notification to update the Storage and Disposal statement as per PR Notice 2007-4.

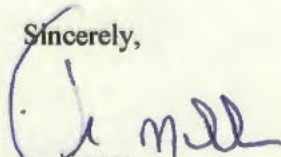
The following documents are enclosed to process this Notification:

1. Application for Pesticide Notification (8570-1)
2. One (1) copy of the draft label with the additional language underlined.
3. One (1) copy of clean labeling.

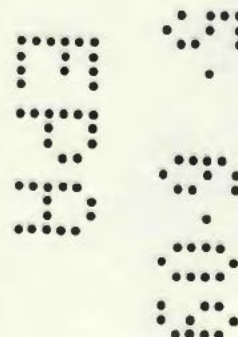
Axss would appreciate having a stamped label returned so that it may provide this to the states.

Should you have any questions, or wish to reach me, please feel free to contact our office at 203-740-1200.

Sincerely,



Janie Miller
Agent to Axss USA, LLC



Bracketed text [] optional language

JUN 02 2009

Bifen 7.9 SC*[Multi Use Insecticide]**[Mixes Easily with Water]**[Controls a Wide Range of Insects and Mites on Trees, Shrubs, Flowering Plants, Non-Bearing Fruit and Nut Trees, and Flowers as listed below]**[Controls Pests Indoors and Outdoors on Residential, Institutional, Public, Commercial, and Industrial Buildings, and Lawns, Ornamentals, Parks, Recreational Areas and Athletic Fields.]**[For Use in Interiorscapes including Hotels, Shopping Malls, and Office Buildings]**[For Use in Outdoor Plantscapes including Residential Dwellings, Parks, Institutional Buildings, Recreational Areas, Athletic Fields, and Home Lawns]**[Prevents and Controls Termites [In] [and] [Around] [Structures] [and] [Constructions]**[Prevents and Controls Ticks (including ticks that may transmit Lyme Disease and Rocky Mountain Spotted Fever)**[For the Control of Deer ticks (Ixodes sp.)]**[<PRODUCT NAME> contains Bifenthrin, the active ingredient used in <BRAND NAME>™ or ®.]**[<PRODUCT NAME> is not manufactured or distributed by <BASIC REGISTRANT /**BRAND HOLDER>, seller of <BRAND>™ or ®.]**[<BRAND>™ or ® is a trademark of <TRADEMARK HOLDER>.]*

When used as a Termiticide, Individuals/ Firms must be licensed by the State to apply termiticide products. States may have more restrictive requirements regarding qualifications of persons using this product. Consult the pest control regulatory agency of your State prior to use of this product.

Active Ingredient:Bifenthrin* **By Wt.** 7.9%**Other Ingredients:** 92.1%**Total** 100.0%

Contains 3/4 pound active ingredient per gallon.

*Cis isomers 97% minimum, trans isomers 3% maximum.

KEEP OUT OF REACH OF CHILDREN**CAUTION**

FIRST AID	
If swallowed	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continuing rinsing eye. • Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For a medical emergency involving this product, call 1-800-222-1222.	
Note to Physician - This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Caution - Harmful if swallowed, inhaled, or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove contaminated clothing and wash before reuse.

All pesticide handlers (mixers, loaders, and applicators) must wear long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves. After the product is diluted in accordance with label directions for use, and/or when mixing and loading using a closed spray tank transfer system, or an in-line injector system, shirt, pants, socks, shoes, and waterproof gloves are sufficient. In addition, all pesticide handlers must wear a respiratory protection device when working in a non-ventilated space (one of the following NIOSH approved respirator with any R, P or HE filter or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R,P or HE prefilter). All pesticide handlers must wear protective eyewear when working in non-ventilated space or when applying termiticide by rodding or sub-slab injection.

Environmental Hazards

This pesticide is extremely toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters. Care should be used when spraying to avoid fish and reptile pets in/around ornamental ponds.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow to drift to blooming crops if bees are visiting the treatment area.

Physical and Chemical Hazards

Do not apply water-based dilutions of Bifen 7.9 SC to electrical conduits, motor housings, junction boxes, switch boxes or other electrical equipment because of possible shock hazard.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use on plants intended only for aesthetic purposes or climatic modifications and being grown in interior plantscapes, ornamental gardens or parks, or lawns and grounds.

RESTRICTIONS:

- Do not apply a broadcast application to interior surfaces of homes.
- Do not apply this product in patient rooms or in any rooms while occupied by the elderly or infirm.
- Do not apply in classrooms when in use.
- Do not apply when occupants are present in the immediate area in institutions such as libraries, sports facilities, etc.
- Do not allow people or pets on treated surfaces until spray has dried.
- Let surfaces dry before allowing people and pets to contact surface.
- During any application to overhead areas of structure, cover surface below with plastic sheeting or similar material except for soil surfaces in crawlspaces.
- Do not allow spray to contact food, foodstuffs, food-contacting surfaces or food utensils or water supplies.
- Thoroughly wash dishes and food handling utensils with soap and water if they become contaminated by application of this product.
- Do not treat areas where food is exposed.
- During indoor surface applications do not allow dripping or runoff to occur.
- Bifen 7.9 SC will not stain, or damage any surface that water alone will not stain or damage.
- Do not apply by air.
- Do not apply in greenhouses, nurseries.
- Do not apply this product through any kind of irrigation system.
- Not for use on sod farm turf, golf course turf, or grass grown for seed.
- Do not apply to pets, crops, or sources of electricity.
- Firewood is not to be treated.
- Do not apply this product in livestock buildings (barns).
- Do not broadcast apply more than 0.4 lbs. ai/acre per year.

For residential lawn use, do not apply more than 0.2 lbs. ai/acre per application.

Application equipment that delivers low volume treatments, such as Patriot Injector® or Actisol® applicators, may also be used to make crack and crevice, deep harborage, spot and general surface treatments of Bifen 7.9 SC.

When treating adjacent to an existing structure, the applicator must check the area to be treated, and immediately adjacent areas of the structure, for visible and accessible cracks and holes to prevent any leaks or significant exposures to persons occupying the structure. People present or residing in the structure during application must be advised to remove their pets and themselves from the structure if they see any signs of leakage. After application, the applicator is required to check for leaks. All leaks resulting in the deposition of termiticide in locations other than those prescribed on this label must be cleaned up prior to leaving the application site. Do not allow people or pets to contact contaminated areas or to reoccupy contaminated areas of the structure until the clean-up is completed.

[Use Directions for Tip-N-Measure Container]

1. Remove the measuring chamber cap and induction seal. Replace the cap and securely tighten. Tip container until liquid fills measuring chamber.
2. Return container to level position. No adjustment is needed.
3. Remove measuring chamber cap and dispense into proper application equipment.

For multiple dose measuring, remove fill chamber cap and dispense according to markings on side of bottle.]

[Use Directions for Squeeze-N-Measure Container]

1. Remove the measuring chamber cap and induction seal.
2. Replace cap loosely on measuring chamber to allow venting.
3. Squeeze container gently until liquid fills measuring chamber.
4. Remove measuring chamber cap and dispense into proper application equipment.
5. Replace cap onto measuring chamber and tighten]

SUBTERRANEAN TERMITE CONTROL

General Information

Using this product in and around structures and building construction will prevent and control termite infestations.

To institute a barrier between the wood and the termites in the soil, the chemical dilution must be effectively dispersed in the soil. It is important to remove unnecessary materials that contain cellulose and wood from around foundation walls, crawl spaces (inside of structure), and porches, and fix damaged plumbing and construction grade in order to deny termite access to moisture.

To use this product effectively, it is important that the service technician be familiar with current termite control practices including trenching, rodding, sub-slab injection, low-pressure spray application, coarse fan spraying of

soil surfaces, crack and crevice (void) injection, excavated soil treatment, and brush or spray applications to infested or susceptible wood. Using these techniques correctly is essential to prevent or control infestations by subterranean termite species of genera *Coptotermes*, *Heterotermes*, *Reticulitermes* and *Zootermopsis*. When determining what procedures to follow, the service technician should consider certain variables such as biology and behavior of the termite specie, structure design, heating ventilation, and air conditioning (HVAC) systems, water table, soil type and compaction, grade conditions, and the location and type of domestic water supplies and utilities.

For information concerning the most up to date control practices in a given region or locale, consult the local resources for structural pest control, state cooperative extensions, and regulatory agencies.

Important: The following precautions must be observed to avoid contamination of public and private water supplies:

- Use anti-backflow equipment or procedures to prevent siphonage of insecticide into water supplies.
- Do not contaminate cisterns, wells, or other water tanks by treating the soil beneath these structures.
- Do not treat soil that is water saturated or frozen.
- Do not treat soil where runoff may occur.
- Consult state and local specifications for recommended treatment practices in your area.
- If local or state specifications do not exist, consult the Federal Housing Administration Specifications (H.U.D.) guidance documents.

Note: For the purpose of this label, crawl spaces are defined as being inside of the structure.

Critical Areas: Points at which the foundation is penetrated or abuts another structure are Critical Areas. These include utility entry points, cracks and expansion joints, bath traps and adjacent structures such as stairs, patios and slab additions.

Structures with Wells/ Cisterns Inside Foundations

Structures that contain wells or cisterns within the foundation of a structure can only be treated using the following techniques:

1. Do not treat soil while it is beneath or within the foundation or along the exterior perimeter of a structure that contains a well or cistern. The treated backfill method must be used if soil is removed and treated outside/away from the foundation. The treated backfill technique is described as follows:
 - a) Trench and remove soil to be treated onto heavy plastic sheeting or similar material or into a wheelbarrow.
 - b) Treat the soil at the rate of 4 gallons of dilute emulsion per 10 linear feet per foot of depth of the trench, or 1 gallon per 1.0 cubic feet of soil. See "Mixing Directions" section of this label. Mix thoroughly into the soil taking care to contain the liquid and prevent runoff or spillage.
 - c) After the treated soil has absorbed the diluted emulsion, replace the soil into the trench.
2. Treat infested and/or damaged wood in place using an injection technique such as described in the "Control of Wood Infesting Insects" section of this label.

Structures with Adjacent Wells/ Cisterns and/or Other Water Bodies

Applicators must inspect all structures with nearby water sources such as wells, cisterns, surface ponds, streams, and other bodies of water and evaluate, at a minimum, the treatment recommendations listed below prior to making an application

1. Prior to treatment, if feasible, expose the water pipe(s) coming from the well to the structure, if the pipe(s) enter the structure within 3 feet of grade.
2. Prior to treatment, applicators are advised to take precautions to limit the risk of applying the termiticide into subsurface drains that could empty into any bodies of water. These precautions include evaluating whether application of the termiticide to the top of the footer may result in contamination of the subsurface drain. Factors such as depth to the drain system and soil type and degree of compaction should be taken into account in determining the depth of the treatment.
3. When appropriate (i.e., on the water side of the structure), the treated backfill technique (described above) can also be used to minimize off-site movement of termiticide.

Before these techniques are used close to cisterns, wells, or other bodies of water, seek advice from local, state or federal agencies for information on treatment practices that are acceptable in your area.

Application Rate:

Use a 0.06% dilution for subterranean termites. For other pests on the label use specific listed rates.

Mixing Directions: Mix the termiticide use dilution in the following manner:

1. Fill tank $\frac{1}{4}$ to $\frac{1}{2}$ full.
2. Start pump to begin by-pass agitation and place end of treating tool in tank to allow circulation through hose.
3. Add appropriate amount of Bifen 7.9 SC.
4. Add remaining amount of water.
5. Let pump run and allow recirculation through the hose for 2 to 3 minutes.

Bifen 7.9 SC may also be combined into full tanks of water. If combined into full tanks of water, allow sufficient time for agitation and/or recirculation to ensure consistency or dilution.

To prepare a 0.06% water dilution, ready to use, dilute 3 quarts of Bifen 7.9 SC with 99.25 gallons of water.

Mixing:

Using the chart below, determine the volume of Bifen 7.9 SC and water to produce the desired volume of finished dilution.

Amount of Bifen 7.9 SC (Gallons except where noted)			
Emulsion Concentrate	Amount of Bifen 7.9 SC	Amount of Water	Desired Gallons of Finished Emulsion
0.06%	1 oz.	127 oz.	1
	5 oz.	4.9	5
	10 oz.	9.9	10
	25 oz.	24.8	25
	1.5 qt.	49.6	50
	2.25 qt.	74.4	75
	3 qt.	99.25	100
	4.5 qt.	148.8	150
	6 qt.	198.5	200
0.12%*	2 oz.	126 oz.	1
	10 oz.	4.9	5
	19.5 oz.	9.8	10
	1.5 qt.	24.6	25
	3 qt.	49.2	50
	4.5 qt.	73.8	75
	6 qt.	98.5	100
	9 qt.	147.7	150
	3	197	200
*When treating for termites, use this rate only in conjunction with volume adjustments, foam applications or underground services applications as listed below.			
Common units of measure: 1 pint = 16 fluid ounces (oz.) 1 quart = 2 pints = 4 cups = 32 fluid ounces (oz.)			

Application Volume: To provide maximum control and protection against termite infestation apply the specified volume of the finished water emulsion and active ingredient as set forth in the directions for use section of this label. If soil will not accept the labeled application volume, the volume may be reduced provided there is a corresponding increase in concentration so that the amount of active ingredient applied to the soil remains the same.

Note: Large reductions of application volume reduce the ability to obtain a continuous barrier. Variance is allowed when volume and concentration are consistent with the label directed rates and a continuous barrier can still be achieved.

The volume of the 0.12% emulsion may be reduced by ½ the labeled volume where desirable for pre- and post-construction applications. When the volume is reduced, the hole spacing for subslab injection and soil rodding may also need to be adjusted to account for lower volume dispersal of the termiticide in the soil. Consult the following Volume Adjustment Chart for details.

VOLUME ADJUSTMENT CHART		
Rate (% emulsion)	0.06%	0.12%
Volume allowed		
Horizontal (gallons emulsion/10 ft ²)	1.0 gallons	0.5 gallons
Vertical (gallons emulsion/10 linear ft.)	4.0 gallons	2.0 gallons

After treatment: All holes in commonly occupied areas into which Bifen 7.9 SC has been applied must be plugged. Plugs must be of a non-cellulose material or covered by an impervious, non-cellulose material.

Foam Applications

Bifen 7.9 SC emulsion, from 0.06 to 0.12% may be converted to foam with 2X – 40X expansion characteristics and used to control or prevent termite infestations.

Depending on the circumstances, foam applications may be used alone or in combination with liquid emulsion applications. Applications may be made behind veneers, piers, chimney bases, into rubble foundations, into block voids or structural voids, under slabs, stoops, porches, or to the soil in crawlspaces, and other similar voids.

Foam and liquid application must be consistent with volume and active ingredient instructions in order to insure proper application has been made. The volume and amount of active ingredient are essential to an effective treatment. At least 75% of the labeled liquid emulsion volume of product must be applied, with the remaining percent delivered to appropriate areas using foam application. Refer to label and use recommendations of the foam manufacturer and the foaming equipment manufacturer.

Foam applications are generally a good supplement to liquid treatments in difficult areas, but may be used alone in difficult spots.

Application Under Slabs or to Soil in Crawlspaces to Prevent or Control Termites

When making applications, Bifen 7.9 SC foam can be used alone or in combination with liquid emulsion. Whether applied as a emulsion, foam, or some of both, the equivalent of at least 4 gallons of 0.06% emulsion (4 ounces of Bifen 7.9 SC concentrate) per 10 linear feet must be applied for vertical barrier, or at least 1 gallon of 0.06% emulsion (1 ounce of Bifen 7.9 SC concentrate) per 10 square feet must be applied for a horizontal barrier. For a foam only application, apply Bifen 7.9 SC concentrate in sufficient concentration and volume to equal 4 ounces of concentrate per 10 linear feet or 1 ounce of concentrate per 10 square feet. For example, 2 gallons of 0.12% emulsion converted to foam and used to cover 10 linear feet is the equivalent of 4 gallons of 0.06% emulsion per 10 linear feet.

Sand Barrier Installation and Treatment

As long as termites have access to soil that has not been treated and can avoid soil that has been treated with Bifen 7.9 SC, they can build mud tubes over surfaces that have been treated. Cracks and spaces should be filled with play box or builder's sand and then treated in the same manner as soil. Follow the rates listed in the Bifen 7.9 SC label.

Retreatment for subterranean termites can only be performed if there is clear evidence of reinfestation or disruption of the barrier due to construction, excavation, or landscaping and/or evidence of the breakdown of the termiticide barrier in the soil. These vulnerable or reinfested areas may be retreated in accordance with application techniques described in this product's labeling. The timing and type of these retreatments will vary depending on factors such as termite pressure, soil types, soil conditions and other factors which may reduce the effectiveness of the barrier.

Annual retreatment of the structure is prohibited unless there is clear evidence that reinfestation or barrier disruption has occurred.

Application in Conjunction with Termite Baits

As part of an IPM (integrated pest management) program for termite control, Bifen 7.9 SC may be applied to areas of the structure with known or suspected infestations such as plumbing, utility entry sites, bath traps, expansion joints, and foundation cracks at a rate of 0.06% as a spot treatment or complete barrier treatment. Applications may be made as described in the **Post Construction Subterranean Termite Treatment** section of this label.

Pre-Construction Subterranean Termite Treatment

Do not apply at a lower dosage and/or concentration than specified on this label for applications prior to the installation of the finished grade.

When treating foundations deeper than 4 feet, apply the termiticide as the backfill is being replaced, or if the construction contractor fails to notify the applicator to permit this, treat the foundation to a minimum depth of 4 feet after the backfill has been installed. The applicator must trench and rod into the trench or trench along the foundation walls and around pillars and other foundation elements, at the rate prescribed from grade to a minimum depth of 4 feet. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. However, in no case should a structure be treated below the footing.

To produce effective pre-construction subterranean termite control, create vertical and/or horizontal chemically treated zones of protection using 0.06% emulsion of Bifen 7.9 SC. Follow the current edition of the Housing and Urban Development Minimum Property Standards to assure that F.H.A. termite-proofing requirements are met.

Horizontal Barriers

Establish a horizontal chemical barrier wherever treated soil will be covered by a slab, such as basement floors, carports, entrance platforms, footing trenches, and slab floors.

Apply 1 gallon of 0.06% emulsion per 10 square feet, or use 1 fluid ounce of Bifen 7.9 SC per 10 square feet in sufficient water (no less than ½ gallon or more than 2 gallons) to provide a uniform treated barrier for the area being treated.

If the fill is coarse aggregate, such as washed gravel, a sufficient volume of emulsion must be applied to allow it to reach the soil beneath for coarse fill.

Make applications with a low-pressure spray (less than 50 p.s.i.) using a coarse spray nozzle. If foundation walls have not been installed around the treated soil and the slab will not be poured the same day as treatment, the treated soil must be covered with a water-proof barrier. Polyethylene sheeting may be used for this purpose.

Vertical Barriers

Vertical barriers must be established in Critical Areas such as along the inside of foundation walls, plumbing, bath traps, utility services and other features that will penetrate the slab.

Using a 0.06% emulsion, apply 4 gallons of emulsion per 10 linear feet per foot of depth or 4 fluid ounces of Bifen 7.9 SC per 10 linear feet per foot of depth from grade level to the top of the footing in sufficient water (not less than 2 gallons or more than 8 gallons) to provide a uniform treated barrier.

When trenching and rodding into the trench, or trenching, ensure that the emulsion reaches the top of the footing. Space rod holes so that a continuous treated barrier is created, but not exceeding 12 inches apart. Avoid soil wash-out around the footing. Trenches should be about 6 inches wide and 6 inches deep. Mix the chemical emulsion with the soil as it is being replaced in the trench. Inside vertical barriers may not be required for monolithic slabs.

When treating hollow block voids, use 2 gallons of emulsion per 10 linear feet to assure that the emulsion reaches the top of the footing..

Prior to each application, applicators must notify the general contractor, construction superintendent, or similar responsible party, of the intended termiticide application and intended sites of application and instruct the responsible person to notify construction workers and other individuals to leave the area to be treated during application and until the termiticide is absorbed into the soil.

Post Construction Subterranean Termite Treatment

For a post-construction treatment, use a 0.06% emulsion. Post-construction treatments shall be made by subslab injection, trenching and rodding into the trench or trenching using a low-pressure spray not exceeding 25 p.s.i at the nozzle. Proper precautions should be taken to avoid soil wash-out around the footing.

Locate, identify, and mark wells, electrical conduits, water and sewer lines, and radiant heat pipes prior to application of Bifen 7.9 SC. Do not puncture or inject Bifen 7.9 SC into these structures.

Basements

Treatment must be made by trenching and rodding into the trench, or trenching at the rate of 4 gallons of emulsion per 10m linear feet per foot of depth wherever the footing, from grade to the bottom of the foundation, is greater than 1 foot of depth. When the footer is greater than four feet below grade, the applicator may trench and rod into the trench, or trench beside foundation walls at the rate designated for four feet of depth. Space rod holes to create a continuous insecticidal barrier, but in no case more than 12 inches apart. Depending on the type of soil, degree of compaction and location of termite activity, the actual depth of treatment will differ. However, a structure should never be treated below the footer. Sub-slab injection may be needed beside the inside of foundation walls, around conduits, piers, and pipes, beside both sides of interior footing-supported walls, and beside cracks and partition walls.

Accessible Crawl Spaces: For crawl spaces, apply vertical termiticide barriers at the rate of 4 gallons of emulsion per 10 linear feet per foot of depth from grade to the top of the footing, or if the footing is more than 4 feet below grade, to a minimum depth of 4 feet. Apply by trenching and rodding into the trench, or trenching. Treat both sides of foundation and around all piers and pipes. Where physical obstructions such as concrete walkways adjacent to foundation elements prevent trenching, treatment may be made by rodding alone. When soil type and/or conditions make trenching prohibitive, rodding may be used. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. Read and follow the mixing and use direction section of the label if situations are encountered where the soil will not accept the full application volume.

1. Rod holes and trenches must not extend below the bottom of the footing.
2. Rod holes must be spaced so as to achieve a continuous termiticide barrier but in no case more than 12 inches apart.
3. Trenches must be a minimum of 6 inches deep or to the bottom of the footing, whichever is less, and need not to be wider than 6 inches. When trenching in sloping (tiered) soil, the trench must be stepped to ensure adequate distribution and prevent termiticide from running off. The emulsion must be mixed with the soil as it is replaced in the trench.
4. When treating plenums or crawl spaces, turn off the air circulation system of the structure until application has been completed and all termiticide has been absorbed by the soil.

Inaccessible Crawl Spaces: For inaccessible interior areas, such as areas where there is insufficient clearance between floor joists and ground surfaces to allow operator access, excavate if possible, and treat according to the instruction for accessible crawl spaces. Otherwise, apply one or a combination of the following two methods.

1. To establish a horizontal barrier, apply to the soil surface, 1 gallon of emulsion per 10 square feet overall using a nozzle pressure of less than 25 p.s.i. and a coarse application nozzle (e.g., Delavan® Type RD Raindrop®, RD-7 or larger, or Spraying Systems Co. 8010LP TeeJet® or comparable nozzle). For an area that cannot be reached with the application wand, use one or more extension rods to make the application to the soil. Do not broadcast or powerspray with higher pressures.
2. To establish a horizontal barrier, drill through the foundation wall or through the floor above and treat the soil perimeter at a rate of 1 gallon of emulsion per 10 square feet. Drill spacing must be at intervals not to exceed 16 inches. Many states have smaller intervals, so check State regulations which may apply.

When treating plenums and crawl spaces, turn off the air circulation systems of the structure until application has been completed and all termiticide has been absorbed by the soil.

Excavation Technique: If treatment must be made in difficult situations, along fieldstone or rubble walls, along faulty foundation walls, and around pipes and utility lines which lead downward from the structure to a well or pond, apply using the following technique:

- a. Prepare a trench, placing the removed soil into heavy-weight plastic sheeting or similar, water-impermeable material.
- b. Treat the soil with 4 gallons of 0.06% emulsion per 10 linear feet per foot of depth of the trench. Completely mix the emulsion into the soil exercising care to avoid liquid running off the sheeting.
- c. Place the treated soil back into the trench after it has absorbed the emulsion.

Attention: Wear NIOSH approved unvented goggles and a respirator when applying Bifen 7.9 SC in a confined area.

Foundations

For applications made after the final grade is installed, the applicator must trench and rod into the trench or trench along the foundation walls and around pillars and other foundation elements, at the rate prescribed from grade to the top of the footing. When the footing is more than four (4) feet below grade, the applicator must trench and rod into the trench or trench along the foundation walls at the rate prescribed to a minimum depth of four feet. The actual depth of treatment will vary depending on soil type, degree of compaction, and location of termite activity. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. However, in no case should a structure be treated below the footing.

Masonry Voids: Drill and treat voids in multiple masonry elements of the structure extending from the structure to the soil in order to create a continuous treatment barrier in the area to be treated. Apply at a rate of 2 gallons of emulsion per 10 linear feet of footing, using a nozzle pressure of less than 25 p.s.i. When using this treatment, access

holes must be drilled below the sill plate and should be as close as possible to the footing as is practical. Treatment of voids in block or rubble foundation walls must be closely examined: Applicators must inspect areas of possible runoff as a precaution against application leakage in the treated areas. Some areas may not be treatable or may require mechanical alteration prior to treatment.

All leaks resulting in the deposition of termiticide in locations other than those prescribed on this label must be cleaned up prior to leaving the application site. Do not allow people or pets to contact contaminated areas or to reoccupy the contaminated areas of the structure until the clean-up is completed.

Note: When treating behind veneer structures (walls, etc.) take proper care to not drill beyond the veneer. If concrete blocks exist behind the veneer, both can be drilled and treated simultaneously.

Bifen 7.9 SC may not be used in voids insulated with rigid foam insulation.

Slabs

Create vertical barriers by trenching and rodding into the trench or trenching outside at the rate of 4 gallons of emulsion per 10 linear feet per foot of depth and by sub-slab injection within the structure. Ensure an even distribution of chemical. Applications must not be made below the bottom of the footing.

Apply beside the outside of the foundation and under the slab on the inside of foundation walls, where needed. Treatment of slabs may also be necessary under and beside both sides of any interior footing-supported walls, in all cracks and expansion joints, and beside one side of interior partitions. By long-rodding or grid pattern injection vertically through the slab, horizontal barriers may be created where necessary.

- a. To permit the creation of an uninterrupted insecticidal barrier, drill holes in the foundation and/or slab.
- b. For foundations that are less than or equal to 1 foot, dig a narrow trench about 6 inches wide beside the outside of the foundation walls. Do not dig beneath the bottom of the footing. As the soil is placed back into the trench, apply 4 gallons of 0.06% emulsion per 10 linear feet per foot of depth to the trench and soil.
- c. For foundations that are deeper than 1 foot, follow the rates stated above for basements
- d. A 0.06% emulsion may be used to treat exposed and wood in bath traps.

SPECIFIC PEST CONTROL APPLICATIONS

Underground Services such as, but not limited to: wires, cables, utility lines, pipes, conduits, etc. Services may be within structures, in right-of-ways or to protect long range (miles) of installations of services.

To prevent attack by termites and ants, apply 0.06 to 0.12% Bifen 7.9 SC emulsion to the soil.

Apply to the bottom of the trench at the rate of 2 gallons of emulsion per 10 linear feet. Let the emulsion be absorbed into the soil. Lay services on the treated soil and cover with about 2 inches of fill soil. Apply another 2 gallons per 10 linear feet over the soil surface to complete the chemical barrier. In wide trenches, only the soil near the services should be treated. A continuous barrier of treated soil surrounding the services must be established.

In cases where the soil will not accept the above labeled volume, 1 gallon of 0.12% Bifen 7.9 SC may be used per 10 linear feet of trench. Apply both to the bottom of the trench and over the soil on top of the services.

Fill the trench with treated fill soil. Treat the soil where each service sticks out from the ground by trenching/rodding of not more than 1 to 2 gallons of emulsion into the soil.

Precautions: Do not treat electrically active underground services.

Posts, Poles, and Other Constructions: Around wooden constructions such as signs, fences and landscape ornamentation an insecticidal barrier can be established by treating with a 0.06% emulsion. Sub-surface injection and gravity-flow through holes in the bottom of the trench, are two treatment methods that can be used on poles and posts that have already been installed. A complete chemical barrier around the pole can be established by treating on all sides. For poles and posts less than six inches in diameter use 1 gallon of emulsion per foot of depth and for larger poles, use 1.5 gallons of emulsion per foot of depth. Apply to a depth of 6 inches below the bottom of the wood. For larger constructions, use 4 gallons per 10 linear feet per foot of depth.

Treatment of Wood-in-Place for Control of Wood-Infesting Insects: (Localized Areas in Structure) For the control of insects such as Termites, Ants, Carpenter Ants, and wood-infesting beetles such as Old House Borer and

Powder Post in localized areas of infested wood in and around structures, apply a 0.06% emulsion to voids and galleries in damaged wood and in spaces between wooden members of a structure and between wood and foundations where wood is at risk. Paint on or fan spray applications may also be used. Place plastic sheeting under overhead areas that are spot treated except for soil surfaces in crawl spaces. Areas in which access is difficult may be treated by drilling, and then injecting the emulsion with a crack and crevice injector into the damaged wood or void spaces. This type of application is not intended to be a substitute for soil treatment, mechanical alteration or fumigation to control extensive infestation of wood-infesting insects.

To control termite carton nests in trees or building voids inject with a 0.06% emulsion. Multiple injection points to varying depths may be necessary. Carton nest material should be removed from building voids when nests are discovered.

Control of Bees and Wasps Indoors: To control Bees, Wasp, Hornets, and Yellow-Jackets, apply a 0.06% emulsion. Application should be made in the late evening when insects are at rest. Spray liberally into hiding and breeding places, especially under attic rafters, contacting as many insects as possible. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Repeat application is necessary only if there are signs of renewed insect activity.

Important: Do not apply emulsion until location of heat pipes, ducts, water and sewer lines and electrical conduits are known and identified. Caution must be taken to avoid puncturing and injection into these structural elements. Do not apply into electrical fixtures, switches, or sockets.

In the home, all food processing surfaces and utensils in the treatment area should be covered during treatment or thoroughly washed before re-use. Remove pets, birds, and cover aquariums before spraying. Do not permit humans or pets to contact treated surfaces until the spray has dried.

During any overhead applications to overhead interior areas of structures, cover surfaces below with plastic sheeting or similar materials.

Wear protective clothing, unvented goggles, gloves and respirator, when applying to overhead areas or in poorly ventilated areas. Avoid touching sprayed surfaces until spray has completely dried.

Broadcast Treatment of Wood for the Control of Wood-infesting Insects and Nuisance Pests: (Outside of Structure) In order to control wood-infesting insects active inside trees, utility poles and/or fence posts, drill to the interior infested cavity and inject a 0.06% emulsion. If treating nuisance pests on the exterior of the structure, apply a 0.06% emulsion with a fan spray using a maximum pressure of 25 psi. and apply just to the point of run-off. To control Bees, Wasps, Hornets, and Yellow-Jackets, direct the spray at nest openings in the ground, bushes, and in cracks and crevices. Saturate nest openings and contact as many insects as possible. Apply in late evening when insects are at rest.

Pests Under Slabs: To control infestations of Arthropods, such as ants, cockroaches and scorpions living beneath the slab area, drill and inject, or horizontal rodding and then inject 1 gallon of a 0.06% to 0.12% emulsion per 10 square feet or 2 gallons of emulsion per 10 linear feet.

Formula for Determining the Active Ingredient Content of the Finished Spray Mixture: The following formula may be used to determine the percent active ingredient that is in the spray tank after mixing Bifen 7.9 SC:

$$\frac{(7.9\%) \times (\text{Fl. oz. of Bifen 7.9 SC added to tank})}{(\text{Gallons of finished spray mix}) \times (128)} = \text{Percent Active Ingredient of spray mix}$$

LAWNS AND ORNAMENTALS

General Application Instructions

Bifen 7.9 SC may be mixed with water and other aqueous carriers for the control of insects and mites on trees, shrubs, foliage plants, non-bearing (perennial crops that will not produce a harvestable raw agricultural commodity during the season of application) fruit and nut trees, and flowers in interiorscapes including hotels, shopping malls, office buildings, etc., and outdoor landscapes, such as around residential dwellings, parks, institutional buildings, recreational areas, athletic fields and home lawns.

Bifen 7.9 SC may be tank-mixed with insect growth regulators as well as other pesticides. Observe all precautions and the Directions for Use for each tank mix product. Physical compatibility of Bifen 7.9 SC may vary with different combinations of products, and local cultural practices. Prepare a small scale (pint or quart jar) test sample for any combination not tested previously. Use the proper proportions of pesticides and water to make sure of the compatibility of the mixture.

Unless otherwise noted, follow the procedure below to prepare a tank mix:

- 1) Add wettable powders to tank water
- 2) Agitate
- 3) Add liquids and flowables
- 4) Agitate
- 5) Add emulsifiable concentrates
- 6) Agitate

Try reversing the order of addition, or increasing the amount of water if the combination is not compatible using the order listed above.

Note: After increasing the amount of water, if the mixture is found to be compatible, it will be necessary to recalibrate the sprayer for the higher volume application. Do not allow mixture to stand overnight.

Resistance: Some insects may develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or state pest management authorities for details.

If resistance to this product develops in your area, this product, or other products with similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and suspect that resistance is a reasonable cause, immediately consult your local company representative or pest management advisor for the best alternative method of control in your area.

Lawn Application Recommendations

Apply Bifen 7.9 SC as a broadcast treatment. For uniform control when applying to dense grass foliage, use volumes of up to 10 gallons per 1,000 square feet.

To ensure control of sub-surface pests, including but not limited to Mole Crickets, using low volume applications (less than 2 gallons per 1,000 square feet) immediately follow treatment with irrigation of treated area with at least 0.25 inches of water.

Application Rates

Under typical conditions, the application rates shown in the table below will provide control of the listed pests. Follow the application rates listed in the table below for typical pest pressure. Bifen 7.9 SC may be applied at up to 1 fl. oz. per 1000 square feet at the discretion of the applicator. Use the higher application rate for maximum residual control.

Pest	Application Rate	Application Instructions
Armyworms Cutworms Sod Webworm	0.18 - 0.25 fl. oz. per 1,000 sq. ft.	For best results, postpone watering (irrigation) or mowing for 24 hours after application. Higher treatment rates (up to 1 fluid oz. per 1000 square feet) may be necessary if high pest pressure exists and grass is maintained taller than 1 inch.
Annual Bluegrass Weevil (<i>Hyperodes</i>) (Adult) Banks Grass Mite Billbugs (Adult) Black Turfgrass Ataenius Adult	0.25 - 0.5 fl. oz. per 1,000 sq. ft.	Annual Bluegrass Weevil (<i>Hyperodes</i>) adults: Treatment should be timed as they travel into grass away from their overwintering sites. Travel usually begins when <i>Forsythia</i> is in full bloom and concludes when flowering dogwood (<i>Cornus florida</i>) is in full bloom. For additional detailed information, check with your State Cooperative Extension Service. Billbug adults: Treatment should be made when adult billbugs are first noticed in April and May. To optimize treatment, degree day models have been developed. For additional detailed information, check with your State

Centipedes Chinch Bugs Crickets Earwigs Fleas (Adult) Grasshoppers Leafhoppers Mealybugs Millipedes Mites Pillbugs Sowbugs		Cooperative Extension Service. Spring treatments for billbug adults will also offer control of over-wintered chinch bugs in temperate climates. Black Turfgrass Ataenius adults: To control the first and second generation of black turfgrass ataenius adults, respectively, treatments should take place in May and July. Time the May treatment to coincide with the full bloom stage of Vanhoutte spiraea (<i>Spiraea vanhoutte</i>) and horse chestnut (<i>Aesculus hippocastanum</i>). Time the July treatment to coincide with the blooming Rose of Sharon (<i>Hibiscus syriacus</i>). Chinch Bugs: Mostly found in the thatch layer, Chinch bugs infest the base of grass plants. In order to optimize the penetration of the insecticide to location of the chinch bugs, irrigation of the grass prior to treatment may be necessary. If the grass is kept at a long mowing height or if the thatch layer excessive, use higher volume treatments. It may be necessary to use higher application rates (up to 1 fluid oz. per 1000 square feet) to control Chinch Bug populations made up of both nymphs and adults in mid summer. Mites: Apply in combination with a labeled application rate of a surfactant to achieve optimal control of eriophyid mites. A second application may be needed, five to seven days after the first, to ensure optimal control.
Crane Flies ¹²	0.5 fl. oz. per 1,000 sq. ft.	Applications should be made August – February to control early to mid-season larvae as they feed on plant crowns. Applications made March – April to late-season larvae may aid in suppression.
Ants Fleas (Larvae) Imported Fire Ants Japanese Beetle (Adult) Mole Cricket (Adult) Mole Cricket (Nymph) Ticks	0.5 - 1.0 fl. oz. per 1,000 sq. ft.	Flea larvae: Flea larvae mature in shaded areas accessible to pets or other animals. When treating these areas use a higher volume treatment so that the insecticide penetrates into the soil. Note: If the lawn area is being treated with Bifen 7.9 SC at 0.25 fluid ounces per 1000 square feet for adult flea control, then the larval application rate can be accomplished by a two- to four-fold increase in spray volume. Imported Fire Ants: For best control use broadcast treatments in combination with mound drenches. This will control present colonies along with foraging workers and newly mated fly-in queens. It is critical either to use high volume treatments or to irrigate prior to application if the soil is dry. Apply 1 fluid oz. per 1,000 square feet when using broadcast treatments. For mound drenches, dilute 1 teaspoon of Bifen 7.9 SC per gallon of water and use 1 to 2 gallons of finished spray per mound using sufficient force to penetrate the top and allow the emulsion to flood ant channels. Treat a four foot diameter around each ant mound. Application should be made in late evening or early morning when it is cooler (65-80°F). Note: A spray rig calibrated to apply 1 fluid oz. per 1,000 square feet of Bifen 7.9 SC in 5 gallons per 1,000 square feet contains the equivalent emulsion (1 teaspoon per gallon) required for fire ant mound drenches in the spray tank. Mole Cricket adults: Since the preferred grass areas are subject to constant invasion in early spring by the active adult stage, it can be difficult to maintain control of adult mole crickets. Make treatments as late in the day as possible and follow with up to 0.5 inches of water after treatment. To ensure maximum contact with the insecticide when the soil is dry, irrigate prior to treatment to bring the adult mole crickets closer to the soil surface. To Obtain optimal control of potential nymphal populations, the grass areas preferred by adult mole crickets in the should be treated immediately prior to peak hatch stage. (see below). Mole Cricket nymphs: To obtain optimal control of potential nymphal populations, the grass areas preferred by adult mole crickets in the spring should be treated immediately prior to peak hatch stage. Young nymphs are more vulnerable to insecticidal treatment at this stage because they are close to the soil surface where the insecticide is most effective. Use higher application rates and frequent applications to control larger, more damaging, nymphs later in the year. Make treatments as late in the day as possible and water immediately with up to 0.5 inches of water. To ensure maximum contact with the insecticide when the soil is dry, irrigate prior to treatment to bring the adult mole crickets closer to the soil surface.

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		<p>ticks (including ticks that may transmit Lyme Disease and Rocky Mountain Spotted Fever). Make application to the entire area where contact with ticks may occur. Do not make spot treatments. When applying to areas with heavy and dense or dense ground cover or higher spray volumes. The entire area must be treated in times of high pest pressure, retreatments may be necessary, retreat only if signs of continued or renewed tick activity are present. Repeat treatments should not be made more often than once per seven days.</p> <p>Tree ticks (Larvae, etc.) have a four-stage life cycle spanning 2 years. Treat in the late fall and/or early spring to control adult ticks located on branches or grass above the soil surface and in mid to late spring to control larvae and nymphs that live in the soil and leaf litter.</p> <p>American dog ticks invade outdoor settings in areas where residences and dwellings are constructed on former fields or wooded areas. These pests normally gather by paths or roadways where they are likely to find a host. To control tick larvae, nymphs and adults, treatments should take place, as needed, from mid spring to early fall.</p>
<p>In New York State:</p> <p>1. This product may not be applied to any grass or turf area within 100 feet of a water body (lake, pond, river, stream, wetland, or drainage ditch).</p> <p>2. A single repeat application of Ethen 75 SC may be made if there are signs of renewed insect activity, but not more than two weeks after the first application.</p>		

Calculating Dilution Rate: To determine the proper dilution of Ethen 75 SC, the required or control specific pests, follow the steps below:

- 1) Determine the target pest requiring the highest application rate for effective control in the Application Rate chart.
- 2) Choose the treatment rate in terms of fluid oz. of Ethen 75 SC.
- 3) Determine the dilution volume necessary for the treatment in the Dilution Chart.
- 4) Use the proper amount of Ethen 75 SC that must be mixed in your desired volume of water as shown in the Dilution Chart.

For example, to control ticks the Application Rate chart shows that 0.7 to 1.0 fluid ounces of Ethen 75 SC should be applied per 1,000 square feet. You select an application rate of 1.0 fluid oz. per 1,000 square feet because maximum residual control is desired. Your application volume is approximately 10 gallons per 1,000 sq. ft. Consulting the Lower Dilution Chart reveals that you should dilute 1.0 fluid oz. of Ethen 75 SC in 10 gallons of water.

Lower Application Dilution Chart

Application Volume: Gallons Per 1,000 Sq. Ft.	Application Rate: Fluid Ounces per 1,000 Sq. Ft.	Fluid Ounces* of Ethen 75 SC Mixed to One Volume of Fluid Ounces			
		1 gallon	5 gallons	10 gallons	100 gallons
1.0	0.10	0.10	0.50	1.0	10.0
1.0	0.25	0.25	1.25	2.5	25.0
1.0	0.5	0.5	2.5	5.0	50.0
1.0	1.0	1.0	5.0	10.0	100.0
2.0	0.10	-	0.45	0.90	9.0
2.0	0.25	0.10	0.67	1.25	12.5
2.0	0.5	0.25	1.25	2.5	25.0
2.0	1.0	0.5	2.5	5.0	50.0
3.0	0.10	-	0.30	0.60	6.0
3.0	0.25	-	0.42	0.83	8.3
3.0	0.5	0.17	0.83	1.67	16.7
3.0	1.0	0.33	1.67	3.33	33.3
4.0	0.10	-	0.20	0.40	4.0
4.0	0.25	-	0.50	1.00	10.0
4.0	0.5	0.10	0.50	1.00	10.0

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4.0	1.0	0.25	1.25	2.5	25.0
5.0	0.18	-	0.18	0.36	3.6
5.0	0.25	-	0.25	0.5	5.0
5.0	0.5	0.1	0.5	1.0	10.0
5.0	1.0	0.2	1.0	2.0	20.0
10.0	0.18	-	-	0.18	1.8
10.0	0.25	-	0.13	0.25	2.5
10.0	0.5	-	0.25	0.5	5.0
10.0	1.0	0.1	0.5	1.0	10.0

*To convert to millimeters, multiply by 29.57

1 fluid ounce = 29.57 ml = 2 tablespoons = 6 teaspoons

Do not use household utensils to measure Bifen 7.9 SC.

Ornamentals and Trees Application Recommendations

Bifen 7.9 SC is for use on, but not limited to, trees, shrubs, ground covers, bedding plants, and foliage plants. Treat with 0.125 to 1.0 fl. oz. of Bifen 7.9 SC per 1,000 square feet or 5.4 to 43.5 fl. oz. per 100 gallons. Bifen 7.9 SC may be diluted and used in different volumes of water as long as the maximum label rate (1.0 fluid oz. per 1,000 square feet or 43.5 fl. oz. per 100 gallons) is not exceeded. If diluted with water or other carriers, Bifen 7.9 SC may be applied through low volume application equipment as long as the maximum label rate (1.0 fluid oz. per 1,000 square feet or 43.5 fl. oz. per 100 gallons) is not exceeded.

Treat as a full coverage foliar spray using the stated application rate. If pest pressure and density of foliage increases, repeat treatments using higher rates may be needed to reach the desired control. Repeat treatments should not be made more often than once per 7 days.

Before application to entire planting, test treat a small number of plants and watch for signs of sensitivity. Some plant species may be sensitive to the final spray solution.

To avoid or delay pest resistance, it is recommended to use an alternate class of pesticide in any application program.

Application Rates

Under typical conditions, the application rates in the table below will offer optimal control of the listed pests. Bifen 7.9 SC may be applied at up to 1 fl. oz. per 1000 square feet (43.5 oz. per 100 gallons) at the discretion of the applicator. When maximum residual control is preferred, use the higher treatment rates.

Pest	Application Rate	Application Instructions
Bagworms Cutworms Elm Leaf Beetles Fall Webworms Gypsy Moth Caterpillars Lace Bugs Leaf Feeding Caterpillars Tent Caterpillars	0.125 - 0.25 fl. oz. per 1,000 sq. ft. (5.4 - 10.8 fl. oz. per 100 gal.)	Bagworms: For optimum control treat when larvae have started to hatch and are young, directing spray to contact as many larvae as possible.
Adelgids [†] Ants Aphids Bees Beet Armyworm Beetles [†] Black Vine Weevil (Adults) Brown Soft Scales Broad Mites Budworms California Red Scale (Crawlers) Centipedes Cicadas [†] Citrus Thrips Clover Mites	0.25 - 0.5 fl. oz. per 1,000 sq. ft. (10.8 - 21.7 fl. oz. per 100 gal.)	Beetles, Scale Crawlers, Twig Borers, and Weevils: Apply to plant foliage; also treat trunks, stems and twigs.

Crickets Diaprepes (Adults) Earwigs European Red Mite Flea Beetles Fungus Gnats (Adults) Grasshoppers Japanese Beetle (Adult) [†] Leafhoppers Leafrollers Mealybugs Millipedes Mites Mosquitoes Orchid Weevil Pillbugs Pine Needle Scales (Crawlers) Plant Bugs (Including <i>Lygus</i> spp.) Psyllids [†] San Jose Scales (Crawlers) Scorpions Sowbugs Spider Mites Spiders Spittlebugs [†] Thrips Tip Moths Treehoppers [†] Twig Borers Wasps Weevils Whiteflies		
Imported Fire Ants** Leafminers Pecan Leaf Scorch Mite Pine Shoot Beetle (Adults) Spider Mites	0.5 - 1.0 fl. oz. per 1,000 sq. ft. (21.7 - 43.5 fl. oz. per 100 gal.)	Spider Mites: Apply during spring and summer for most effective control of twospotted spider mites. During mid- to late-summer it may be necessary to make more frequent treatments, possibly at higher rates to achieve suitable control. Control may be enhanced by adding a surfactant or horticultural oil or by combining Bifen 7.9 SC with other products registered to control mites. Applications of Bifen 7.9 SC may be alternated with chemicals offering other modes of action in programs that are designed to manage resistance by twospotted spider mites. For recommendations on resistance management in your region check with your local Cooperative Extension Service.
**For foraging ants. [†] Not for use in California.		

Calculating Dilution Rates: To determine the proper dilution of Bifen 7.9 SC that is required to control specific pests, follow the steps below:

- 1) Determine the target pest requiring the highest application rate for effective control in the **Application Rates** chart.
- 2) Choose the treatment rate in terms of fluid oz. of Bifen 7.9 SC.
- 3) Determine the dilution volume necessary for the treatment in the **Dilution Chart**.
- 4) Use the proper amount of Bifen 7.9 SC that must be mixed in your desired volume of water as shown in the **Dilution Chart**.

For example, to control black vine weevil adults on rhododendron, the Application Rates table shows that 0.25 to 0.5 fluid ounces of Bifen 7.9 SC should be applied per 1,000 square feet. You select an application rate of 0.5 fluid oz. per 1,000 square feet because maximum residual control is desired. Your application volume is approximately 300 gallons per acre, which is equivalent to 6.9 gallons per 1,000 square feet. Consulting the Ornamental Dilution Chart reveals that you should dilute 0.72 fluid oz. of Bifen 7.9 SC in 10 gallons of water.

Ornamental Application Dilution Chart

Application Volume Gallons Per		Application Rate FL. oz. per	Fluid Ounces* of Bifen 7.9 SC Diluted to these Volumes of Finished Spray			
1,000 sq. ft.	Acre	1,000 sq. ft.	1 gallon	5 gallons	10 gallons	100 gallons
2.3	100	0.125	-	0.27	0.54	5.4
2.3	100	0.25	0.11	0.54	1.08	10.8
2.3	100	0.5	0.22	1.09	2.17	21.7
2.3	100	1.0	0.44	2.17	4.35	43.5
4.6	200	0.125	-	0.14	0.27	2.7
4.6	200	0.25	-	0.27	0.54	5.4
4.6	200	0.5	0.11	0.54	1.09	10.9
4.6	200	1.0	0.22	1.09	2.17	21.7
6.9	300	0.125	-	-	0.18	1.8
6.9	300	0.25	-	0.18	0.36	3.6
6.9	300	0.5	-	0.36	0.72	7.2
6.9	300	1.0	0.15	0.72	1.45	14.5

*To convert to millimeters, multiply by 29.57
 300 gallons per acre is a typical application volume for landscape ornamental applications.
 1 fluid ounce = 29.57 ml = 2 tablespoons = 6 teaspoons
 Do not use household utensils to measure Bifen 7.9 SC.

Pest Control on Outside Surfaces and Around Buildings

Bifen 7.9 SC may be used to control the following pests:

Ants	Clover Mites	Grasshoppers	Silverfish
Carpenter Ants	Crickets	Hornets	Sod Webworms
Fire Ants	Cutworms	Japanese Beetles [†]	Sowbugs (Pillbugs)
Armyworms	Dichondra Flea	Midges	Spider Mites
Bees	Beetles	Millipedes	Spiders (including
Beetles	Earwigs	Mosquitoes	Black Widow
Biting Flies	Elm Leaf Beetles	Moths	Spiders)
Boxelder Bugs	Firebrats	Roaches	Springtails
Centipedes	Fleas	(including	Ticks (including
Chiggers	Flies	Cockroaches)	Brown Dog Ticks)
Chinch Bugs	Gnats	Scorpions	Wasps

[†]Not for use in California.

Application Recommendations

Use a 0.02 to 0.06% dilution to spray outside surfaces of buildings including, but not limited to, exterior siding, foundations, porches, window frames, eaves, patios, garages, refuse dumps, lawns such as grass areas adjacent or around private homes, duplexes, townhouses, condominiums, house trailers, apartment complexes, carports, garages, fence lines, storage sheds, barns, and other residential and non-commercial structures, soil, trunks of woody ornamentals and other areas where pests congregate or have been seen. Use a spray volume of up to 10 gallons of dilution per 1,000 square feet. Use higher application volumes if vegetation or landscape materials are dense.

Mixing Directions: For 0.02% suspension, mix 0.33 fluid oz. of Bifen 7.9 SC per gallon of water. For 0.06% suspension, mix 1 fluid oz. Bifen 7.9 SC per gallon of water (1 fluid oz. = 2 tablespoons). Do not use household utensils to measure Bifen 7.9 SC. Use the higher rates for heavy pest infestation, quicker knockdown or longer residual control. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Repeat application only if there are signs of renewed insect activity. Repeat application limited to once per seven days.

Perimeter Treatment: Treat a band of soil and vegetation 6 to 10 feet wide around and next to the structure and the foundation of the structure to a height of 2 to 3 feet. Use 0.33 to 1.0 fluid oz. of Bifen 7.9 SC per 1,000 square feet in enough water to provide sufficient coverage (refer to Perimeter Application Dilution Chart).

For Ant and Fire Ant Mounds use Bifen 7.9 SC 0.06% dilution as Drench Method: Use 1-2 gallons of dilution for each mound area. Sprinkle the mound until wet and apply to a 4 foot diameter circle around the mound. For mounds larger than 12", use a higher volume. Applications should be made in cool weather, such as in early morning or late evening hours, not in the heat of the day.

Mosquito Control: To control mosquitoes around buildings, landscapes, and lawns, dilute 0.33 to 1.0 fl. oz. of Bifen 7.9 SC per gallon of water and apply at the rate of one gallon of dilution per 1,000 square feet as a general spray. Bifen 7.9 SC may be diluted at lower concentrations and applied at higher volumes to ensure the proper amount of product per area (refer to the Ornamental or Perimeter Application Dilution Charts).

Calculating Dilution Rates: The following steps should be taken to determine the appropriate dilution of Bifen 7.9 SC that is required to control specific pests:

- 1) Select an application rate in of fluid oz. of Bifen 7.9 SC.
- 2) Determine your application volume and amount of spray mix you want to prepare in the **Dilution Chart**.
- 3) Use the **Dilution Chart** to determine the appropriate volume of Bifen 7.9 SC that must be mixed in your desired volume of water.

Perimeter Application Dilution Chart

Application Volume Gallons Per	Application Rate Fluid Ounces Per	Fluid Ounces* of Bifen 7.9 SC Diluted to these Volumes of Finished Spray			
		1 gallon	5 gallons	10 gallons	100 gallons
1000 sq. ft.	1000 sq. ft.				
1	0.33	0.33	1.67	3.33	33.3
1	0.5	0.5	2.5	5.0	50.0
1	0.67	0.67	3.33	6.67	66.7
1	0.75	0.75	3.75	7.5	75.0
1	1.0	1.0	5.0	10.0	100.0
2	0.33	0.17	0.83	1.65	16.5
2	0.5	0.25	1.25	2.5	25.0
2	0.67	0.33	1.67	3.35	33.5
2	0.75	0.38	1.88	3.75	37.5
2	1.0	0.5	2.5	5.0	50.0
3	0.33	0.11	0.55	1.10	11.0
3	0.5	0.17	0.83	1.67	16.7
3	0.67	0.22	1.11	2.23	22.3
3	0.75	0.25	1.25	2.5	25.0
3	1.0	0.33	1.67	3.33	33.3
4	0.33	-	0.41	0.83	8.3
4	0.5	0.13	0.63	1.25	12.5
4	0.67	0.17	0.84	1.67	16.7
4	0.75	0.19	0.94	1.88	18.8
4	1.0	0.25	1.25	2.5	25.0
5	0.33	-	0.33	0.67	6.7
5	0.5	0.1	0.5	1.0	10.0
5	0.67	0.13	0.67	1.33	13.3
5	0.75	0.15	0.75	1.5	15.0
5	1.0	0.2	1.0	2.0	20.0
10	0.33	-	0.17	0.33	3.3
10	0.5	-	0.25	0.5	5.0
10	0.67	-	0.33	0.67	6.7
10	0.75	-	0.38	0.75	7.5
10	1.0	0.1	0.5	1.0	10.0
*To convert to milliliters, multiply by 29.57 1 fluid oz. = 29.57 ml = 2 tablespoons = 6 teaspoons Do not use household utensils to measure Bifen 7.9 SC.					

INDOOR USE

Bifen 7.9 SC may be used for residual pest control in buildings and structures and on modes of transport. For control of ants, bees, beetles, boxelder bugs, carpet beetles, centipedes, clothes moths, cockroaches, crickets, earwigs, firebrats, flies, gnats, midges, millipedes, pillbugs, scorpions, silverfish, sowbugs, spiders, ticks and wasps.

In the home, all food processing surfaces and utensils should be covered during treatment or thoroughly washed before reuse. Exposed food should be covered or removed. Do not permit humans or pets to contact treated surfaces until the spray has dried. During any overhead applications to overhead interior areas of structures, cover surfaces below with plastic sheeting or similar materials.

Wear protective clothing, unvented goggles, gloves and respirator when applying to overhead areas in poorly ventilated areas. Avoid touching sprayed surfaces until sprays have completely dried.

Application Recommendations

Apply to areas where pests hide. These areas include, but are not limited to, baseboards, corners, storage areas, closets, around water pipes, doors and windows, attics and eaves, behind and under refrigerators, cabinets, sinks, furnaces, stoves, the underside of shelves, drawers and similar areas. Treat with a low-pressure spray (25 psi or less), coarse, crack and crevice, pinstream, spot or with a paint brush. Pay close attention to cracks and crevices. Not for use as a space spray.

Mixing Directions: Prepare a dilution of Bifen 7.9 SC for spray or brush application. See mixing directions in "Pest Control on Outside Surfaces and Around Buildings" section (page XX).

- Fill sprayer with the required amount of water.
- Add Bifen 7.9 SC.
- Close sprayer and shake to ensure proper mixing.
- Prepare only the amount of solution necessary for treatment.

In order to achieve and/or maintain control in times of high pest pressure, retreatment may be needed. Repeat application should only take place if there are signs of renewed insect activity and should not exceed one application per 7 days.

Application Rates: For 0.02% suspension, mix 0.33 fluid oz. of Bifen 7.9 SC per gallon of water. For 0.06% suspension, mix 1 fluid oz. Bifen 7.9 SC per gallon of water (1 fluid oz. = 2 tablespoons). Do not use household utensils to measure Bifen 7.9 SC. Use the higher rates for heavy pest infestation, quicker knockdown or longer residual control.

Pest	Application Rate	Application Instructions
Ants Bedbugs Bees Beetles Boxelder bugs Carpet beetles Centipedes Clothes moths Cockroaches Crickets Earwigs Firebrats Flies Gnats Midges Millipedes Pillbugs Scorpions Silverfish	0.33 – 1.0 fl. oz. per gallon of water (0.02% - 0.06% suspension)	Ants: Apply to ant trails, around doors and windows and other places that ant frequent. Bedbugs: To help control of Bedbugs, apply thoroughly to crack and crevices where bedbugs frequent. This includes bed frames, box springs, inside empty dressers and clothes closets, carpet edges, wall moldings (high and low), and wallpaper edges. Do not use on bed linens, pillows, mattresses, or clothes. Before application, remove all clothes and other articles from dressers or clothes closets. Allow all treated areas to dry before use. Not recommended for use as sole protection against bedbugs. If evidence of bedbugs is found in/on mattresses, use a product approved for this use. Bees and Wasps: Apply to nest in late evening when pests are at rest. Spray nests and surrounding areas thoroughly. Spray nests, entrances to nests and surrounding areas thoroughly. Contact as many insects as possible. Retreat if signs of renewed activity exist. Boxelder Bugs, Centipedes, Earwigs, Beetles, Millipedes, Pillbugs, and Sowbugs: Treat around doors, windows, baseboards, storage areas and other locations where pests may be found. Cockroaches, Crickets, Firebrats, Scorpions, Silverfish, Spiders, and

Sowbugs Spiders Ticks Wasps	Ticks: Use a coarse, low pressure spray to areas where pests hide. These areas include baseboards, corners, storage areas, closets, around water pipes, doors and windows, attics and eaves, behind and under refrigerators, cabinets, sinks, furnaces, and stoves, the underside of shelves, drawers, and similar areas. Pay close attention to cracks and crevices.
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Food/Feed Handling Establishments

Bifen 7.9 SC, when used as a general spot, surface, or crack and crevice treatment, may be applied in both food/feed and nonfood areas of food/feed handling establishments.

Food/feed handling establishments are any place other than private residences where exposed food/feed is held, processed, prepared or served, including areas for receiving, storing, packing (canning, bottling, wrapping, boxing), preparing, enclosed processing systems (mills, dairies, edible oils, syrups) of food and edible waste storage. Serving areas where food is exposed and the facility is in operation are also considered food areas.

Non-food areas in which applications are allowed include garbage rooms, lavatories, floor drains (to sewers), entries and vestibules, offices, locker rooms, machine rooms, garages, mop closets and storage (after canning or bottling).

Some of the use sites that are allowed include: Aircraft (do not use in aircraft cabins), apartment buildings, bakeries, bottling facilities, breweries, buses, cafeterias, candy plants, canneries, dairy product processing plants, food manufacturing plants, food processing plants, food service establishments, granaries, grain mills, hospitals, hotels, industrial buildings, laboratories, meat/poultry/egg processing plants, mobile/motor homes, nursing homes, offices, railcars, restaurants, schools, ships, trailers, trucks, vessels, warehouses and wineries.

General Surface Application: Do not use this application method in food/feed handling establishments when the facility is in operation or foods/feeds are exposed. During treatment, remove or cover all food processing and/or handling equipment and do not apply directly to food products. All equipment, benches, shelving and other surfaces in food processing plants, bakeries, cafeterias, and other facilities, which food will contact must be washed after treatment. Clean food handling equipment or processing equipment and rinse completely with fresh, clean water.

Spot, Crack and Crevice Application: These types of treatments can be done when the facility is operating, but food should be covered or removed from the treatment area. Do not apply directly to food.

Foam Applications: Converting Bifen 7.9 SC to foam will allow it to be used to treat structural voids. To produce a 0.02% to 0.06% foam concentration, dilute 0.33 to 1.0 fl. oz. of Bifen 7.9 SC per gallon of water and add the manufacturer's recommended amount of foaming agent. Before application, make sure that the foaming agent is compatible with Bifen 7.9 SC.

TERMITE CONTROL (ABOVE GROUND ONLY)

The treatment methods that are expressed below are intended to kill termite workers or winged reproductives present at the time of application. These methods should supplement, not substitute for, mechanical alteration, soil treatment or foundation treatment.

Controlling winged reproductive termites and exposed workers in localized areas can be accomplished by diluting 1.0 fluid ounce of Bifen 7.9 SC per gallon of water and applying the dilution at the rate of one gallon per 1,000 square feet to attics, crawl spaces, unfinished basements and other void areas as a coarse fan spray. Both swarming termites and the areas where they gather should be treated.

Controlling above-ground termites in localized areas of infested wood may be accomplished by diluting 1.0 fluid oz. of Bifen 7.9 SC per gallon of water and applying as a liquid or foam to voids and galleries in wood that is damaged, in addition to spaces between wooden structural members and between the sill plate and foundation where the wood is at risk to attack. Drilling and then injecting the foam or dilution into damaged wood or wall voids with an appropriate directional injector will help reach those areas that are not easy to access. After treatment is completed, securely plug the holes that are in regularly occupied areas in the construction elements.

Controlling termite carton nests in building voids can be accomplished by diluting 1.0 fluid oz. of Bifen 7.9 SC per gallon of water and apply as a liquid or foam using a pointed injection tool. To obtain control, various depths of injection and numerous injection points may be needed. After treatment is complete and when feasible, remove the carton nest material from the building void.

ANT CONTROL

Nuisance Ants Indoors: Apply to ant nests for best results. Apply a dilution of 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per gallon of water at the rate of one gallon of dilution per 1,000 square feet to places where ants have been seen or are believed to forage as a general surface, crack and crevice or spot treatment. Some of these areas include, but are not limited to, baseboards, in and behind cabinets, under and behind dishwashers, furnaces, refrigerators, sinks and stoves, around pipes, cracks and crevices and in corners. Pay close attention when treating entry points into the home or around doors and windows. When combining liquid Bifen 7.9 SC treatments with bait treatments, use Bifen 7.9 SC as instructed above and apply baits in those areas where Bifen 7.9 SC has not been applied. Do not apply as a broadcast or general surface treatment in residential areas.

Nuisance Ants Outdoors: Apply to ant nests for best results. Treat ant trails, around doors and windows, and other places where ants have been seen or are likely to forage. Treat using a low or high volume perimeter treatment depending on the density of vegetation and landscape materials as described in the "Pest Control on Outside Surfaces and Around Buildings" section of this label. When treating concrete surfaces, more frequent treatments, higher dilutions and/or application volumes may be needed for ant control. The following procedure will normally allow optimal control:

1. Non-porous surfaces should be treated with low volume applications using 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per gallon of water and applying this dilution at the rate of one gallon per 1,000 square feet.
2. Vegetation and porous surfaces should be treated with high volume applications using dilutions that are calculated to deliver 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per 1,000 square feet (refer to the Ornamental and Perimeter Application Dilution Charts).
3. Dilute 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per gallon of water and apply at a rate of up to 10 gallons of dilution per 1,000 square feet for maximum residual control.

Carpenter Ants Indoors: Treat areas where carpenter ants are seen or are predicted to forage, such as baseboards, in and behind cabinets, under and behind dishwashers, furnaces, refrigerators, sinks, and stoves, around pipes, cracks and crevices, and in corners by diluting 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per gallon of water and applying at the rate of one gallon of dilution per 1,000 square feet as a general surface, crack and crevice or spot and/or foam treatment. Pay close attention to treating entry points into the home or premises such as around doors and windows. Spray or foam into cracks into crevices or drill holes and spray, mist or foam into voids and galleries where carpenter ants or their nests are present. When combining liquid Bifen 7.9 SC treatments with bait treatments, use Bifen 7.9 SC as instructed above and apply baits in those areas where Bifen 7.9 SC has not been applied. Do not apply as a broadcast or general surface treatment in residential areas.

Carpenter Ants Outdoors: Treat carpenter ant nests for best results. Treat areas where carpenter ants are seen or are believed to forage, such as ant trails, around doors and windows. As stated in "Pest Control on Outside Surfaces and Around Buildings" section, apply using a low or high volume perimeter treatment of this label. When treating concrete surfaces, more frequent treatments, higher dilution and/or application volumes may be needed for carpenter ant control. Following the procedure below will normally allow optimal control:

1. Treat non-porous surfaces with low volume applications using 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per gallon of water and applying this dilution at the rate of one gallon per 1,000 square feet.
2. Bifen 7.9 SC may be used as a treatment for the trunks of trees that have carpenter ant trails, or where carpenter ants are foraging. Use 0.5 to 1.0 fl. oz. of Bifen 7.9 SC per gallon of water and apply this dilution to wet the bark from the base of the tree to as high as possible on the trunk.
3. Vegetation and porous surfaces should be treated with high volume applications using dilutions that are calculated to deliver 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per 1,000 square feet (refer to the Ornamental and Perimeter Application Dilution Charts).
4. Dilute 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per gallon of water and apply at a rate of up to 10 gallons of dilution per 1,000 to obtain maximum residual control.

To control carpenter ants inside trees, utility poles, fencing or deck materials and similar structural members, drill to find the inside infested cavity and inject or foam a 0.06% dilution (1.0 fl. oz. of Bifen 7.9 SC per gallon of water) into the cavity with adequate volume and a proper treatment tool with a splash-back guard.

Where there are ants tunneling below the surface, dilute 0.5 to 1.0 fluid ounces of Bifen 7.9 SC per gallon of water and applying as a drench or inject the dilution or foam at intervals of 8 to 12 inches. A uniform vertical barrier should be established where there are ants tunneling below surfaces such as at the edges of walls, driveways or other hard surfaces.

Apply a 0.06% dilution to stored lumber or wood piles using a sprinkling can or a hose-end sprayer to deliver a coarse drenching spray. This wood may be used for lumber or burned after 30 days. Do not use this method of application in structures.

The soil under the area where firewood will be stacked may be treated with a dilution of 1.0 fluid oz. of Bifen 7.9 SC per gallon of water to protect the firewood from carpenter ants (and termites). Apply at the rate of one gallon of dilution per 8 square feet. DO NOT treat firewood with this product.

STORAGE AND DISPOSAL

Prohibitions: Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Keep out of reach of children and animals. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use replace lids and close tightly. Do not put concentrate or dilute material into food or drink container.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills.

To Confine Spill: If liquid, dike surrounding area or absorb with sand, cat litter, or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Pesticide Disposal: Pesticide wastes are toxic. Do not contaminate water, food, or feed by storage or disposal. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. Dispose of excess or waste pesticide by use according to label directions, or contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal: Non-refillable containers. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Non-refillable container less than or equal to 5 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Non-refillable container greater than 5 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows (all sizes): Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Refillable container: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

To clean the container before final disposal, empty the remaining contents from the container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing process two more times.

Plastic Container: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Returnable/ Refillable Sealed Container: Do not rinse container. Do not empty remaining formulated product. Do not break seals. Return intact to point of purchase.

For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC 1-800-424-9300.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

BEFORE BUYING OR USING THIS PRODUCT, read the entire Directions for Use and the following Conditions of Sale and Limitation of Warranty and Liability. By buying or using this product, the buyer or user accepts the following Conditions of Sale and Limitation of Warranty and Liability, which no employee or agent of AXSS USA, LLC or the seller is authorized to vary in any way.

JUN 02 2009

Follow the Directions for Use of this product carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop or other plant injury, ineffectiveness, or other unintended consequences may result from such risks as weather or crop conditions, mixture with other chemicals not specifically identified in this products label, or use of this product contrary to the label instructions, all of which are beyond the control of AXSS USA, LLC and the seller. The buyer or user of this product assumes all such inherent risks.

Subject to the foregoing inherent risks, AXSS USA, LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use when the product is used in strict accordance with such Directions for Use under normal conditions of use. EXCEPT AS WARRANTED IN THIS LABEL, THIS PRODUCT IS SOLD AS IS TO THE EXTENT ALLOWED BY APPLICABLE LAW. AXSS USA, LLC MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ELIGIBILITY OF THIS PRODUCT FOR ANY PARTICULAR TRADE USAGE.

TO THE EXTENT ALLOWED BY APPLICABLE LAW, THE BUYERS OR USERS EXCLUSIVE REMEDY FOR ANY INJURY, LOSS, OR DAMAGE RESULTING FROM THE HANDLING OR USE OF THIS PRODUCT, INCLUDING BUT NOT LIMITED TO CLAIMS OF BREACH OF WARRANTY OR CONTRACT, NEGLIGENCE, STRICT LIABILITY, OR OTHER TORTS, SHALL BE LIMITED TO ONE OF THE FOLLOWING, AT THE ELECTION OF AXSS USA, LLC OR THE SELLER: DIRECT DAMAGES NOT

EXCEEDING THE PURCHASE PRICE OF THE PRODUCT OR REPLACEMENT OF THE PRODUCT. TO THE EXTENT ALLOWED BY APPLICABLE LAW, AXSS USA, LLC AND THE SELLER SHALL NOT BE LIABLE TO THE BUYER OR USER OF THIS PRODUCT FOR ANY CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES, OR DAMAGES IN THE NATURE OF A PENALTY.

Actisol® is a registered trademark of Environmental Delivery Systems, Inc.

Delavan® is a registered trademark of Delavan Spray, LLC.

Firstline® is a registered trademark of FMC Corporation.

Patriot Injector® is a registered trademark of Unifix USA, LLC.

Raindrop® is a registered trademark of GP Companies, Inc.

TeeJet® is a registered trademark of Spraying Systems Company.

EPA Reg. No. 83520-3

EPA Est. No. XXXXX-XX-XXX

Net Contents: _____

Manufactured by:

Axss USA, LLC

1100 Platte Falls Road

Platte City, Missouri 64079

12/11/13

MATERIAL TO BE ADDED TO JACKET

REG #

83520-3

Description:

PH Notice 2007-4 Changes

check all that apply	
<input type="checkbox"/>	new stamped accepted label
<input type="checkbox"/>	new CSF
<input checked="" type="checkbox"/>	notification

Instructions:

Attach this sheet to the top of **ALL** material sent to the file room (both loose paper and new material in jackets). This sheet will be imaged; a clear description will aid in finding material in the e-jacket. Remove staples from all material. If returning loose paper then hold together with a binder or paper clip. CSFs should be placed in the CSF folder (if returning jacket) or covered with a red CBI sheet (if returning loose paper). Material to be returned to file room should be place in the appropriate bin.

Reviewer's

Name:

Nicole Williams

Date:

Phone:

703.308.5551

Division:

AD

May 29, 2009

Document Processing Desk (NOTIF)
Office of Pesticide Programs (7504P)
US Environmental Protection Agency
One Potomac Yard
2777 S. Crystal Drive
Room S-4900, 4th Floor
Arlington, VA 22202

Attention: Mr. R. Gebken (PM #13)

RE: "Bifen 7.9 SC"; EPA Reg. No. 83520-3
Notification to revise Storage and Disposal Statement

Dear Mr. Gebken:

On behalf of Axss USA, LLC, Inc. please find enclosed the following:

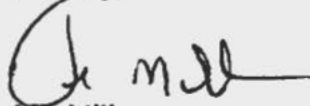
"Notification of label change per PR Notice 2007-4. This notification is consistent with the guidance in PR Notice 2007-4 and the requirements of EPA's regulations at 40 CFR 156.10, 156.140, 156.144, 156.146, and 156.156. No other changes have been made to the labeling or the Confidential Statement of Formula for this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if the amended label is not consistent with the requirements 40 CFR 156.10, 156.140, 156.144, 156.146, and 156.156, this product may be in violation of FIFRA and may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA."

The following documents are enclosed to process this Notification:

1. Application for Pesticide Notification (8570-1)
2. One (1) copy of the draft label with the additional language underlined.

Should you have any questions, or wish to reach me, please feel free to contact our office at 203-740-1200.

Sincerely,



Jane Miller
Agent to Axss USA, LLC

JUN 02 2009

Bracketed text [] optional language

Bifen 7.9 SC*[Multi Use Insecticide]**[Mixes Easily with Water]**[Controls a Wide Range of Insects and Mites on Trees, Shrubs, Flowering Plants, Non-Bearing Fruit and Nut Trees, and Flowers as listed below]**[Controls Pests Indoors and Outdoors on Residential, Institutional, Public, Commercial, and Industrial Buildings, and Lawns, Ornamentals, Parks, Recreational Areas and Athletic Fields.]**[For Use in Interiorscapes including Hotels, Shopping Malls, and Office Buildings]**[For Use in Outdoor Plantscapes including Residential Dwellings, Parks, Institutional Buildings, Recreational Areas, Athletic Fields, and Home Lawns]**[Prevents and Controls Termites [In] [and] [Around] [Structures] [and] [Constructions]]**[Prevents and Controls Ticks (including ticks that may transmit Lyme Disease and Rocky Mountain Spotted Fever)]**[For the Control of Deer ticks (Ixodes sp.)]**[<PRODUCT NAME> contains Bifenthrin, the active ingredient used in <BRAND NAME>™ or ®.]**[<PRODUCT NAME> is not manufactured or distributed by <BASIC REGISTRANT / BRAND HOLDER>, seller of <BRAND>™ or ®.]**[<BRAND>™ or ® is a trademark of <TRADEMARK HOLDER>.]*

When used as a Termiticide, Individuals/ Firms must be licensed by the State to apply termiticide products. States may have more restrictive requirements regarding qualifications of persons using this product. Consult the pest control regulatory agency of your State prior to use of this product.

Active Ingredient:

Bifenthrin*.....

Other Ingredients:.....**Total**.....

By Wt.

7.9%

92.1%

100.0%

Contains 3/4 pound active ingredient per gallon.

*Cis isomers 97% minimum, trans isomers 3% maximum.

KEEP OUT OF REACH OF CHILDREN**CAUTION****FIRST AID**

If swallowed	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continuing rinsing eye. • Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For a medical emergency involving this product, call 1-800-222-1222.	
Note to Physician - This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Caution - Harmful if swallowed, inhaled, or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove contaminated clothing and wash before reuse.

All pesticide handlers (mixers, loaders, and applicators) must wear long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves. After the product is diluted in accordance with label directions for use, and/or when mixing and loading using a closed spray tank transfer system, or an in-line injector system, shirt, pants, socks, shoes, and waterproof gloves are sufficient. In addition, all pesticide handlers must wear a respiratory protection device when working in a non-ventilated space (one of the following NIOSH approved respirator with any R, P or HE filter or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R,P or HE prefilter). All pesticide handlers must wear protective eyewear when working in non-ventilated space or when applying termiticide by rodding or sub-slab injection.

Environmental Hazards

This pesticide is extremely toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters. Care should be used when spraying to avoid fish and reptile pets in/around ornamental ponds.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow to drift to blooming crops if bees are visiting the treatment area.

Physical and Chemical Hazards

Do not apply water-based dilutions of Bifen 7.9 SC to electrical conduits, motor housings, junction boxes, switch boxes or other electrical equipment because of possible shock hazard.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use on plants intended only for aesthetic purposes or climatic modifications and being grown in interior landscapes, ornamental gardens or parks, or lawns and grounds.

RESTRICTIONS:

Do not apply a broadcast application to interior surfaces of homes.

Do not apply this product in patient rooms or in any rooms while occupied by the elderly or infirm.

Do not apply in classrooms when in use.

Do not apply when occupants are present in the immediate area in institutions such as libraries, sports facilities, etc.

Do not allow people or pets on treated surfaces until spray has dried.

Let surfaces dry before allowing people and pets to contact surface.

During any application to overhead areas of structure, cover surface below with plastic sheeting or similar material except for soil surfaces in crawlspaces.

Do not allow spray to contact food, foodstuffs, food-contacting surfaces or food utensils or water supplies.

Thoroughly wash dishes and food handling utensils with soap and water if they become contaminated by application of this product.

Do not treat areas where food is exposed.

During indoor surface applications do not allow dripping or runoff to occur.

Bifen 7.9 SC will not stain, or damage any surface that water alone will not stain or damage.

Do not apply by air.

Do not apply in greenhouses, nurseries.

Do not apply this product through any kind of irrigation system.

Not for use on sod farm turf, golf course turf, or grass grown for seed.

Do not apply to pets, crops, or sources of electricity.

Firewood is not to be treated.

Do not apply this product in livestock buildings (barns).

Do not broadcast apply more than 0.4 lbs. ai/acre per year.

For residential lawn use, do not apply more than 0.2 lbs. ai/acre per application.

Application equipment that delivers low volume treatments, such as Patriot Injector® or Actisol® applicators, may also be used to make crack and crevice, deep harborage, spot and general surface treatments of Bifen 7.9 SC.

When treating adjacent to an existing structure, the applicator must check the area to be treated, and immediately adjacent areas of the structure, for visible and accessible cracks and holes to prevent any leaks or significant exposures to persons occupying the structure. People present or residing in the structure during application must be advised to remove their pets and themselves from the structure if they see any signs of leakage. After application, the applicator is required to check for leaks. All leaks resulting in the deposition of termiticide in locations other than those prescribed on this label must be cleaned up prior to leaving the application site. Do not allow people or pets to contact contaminated areas or to reoccupy contaminated areas of the structure until the clean-up is completed.

[Use Directions for Tip-N-Measure Container]

1. Remove the measuring chamber cap and induction seal. Replace the cap and securely tighten. Tip container until liquid fills measuring chamber.
2. Return container to level position. No adjustment is needed.
3. Remove measuring chamber cap and dispense into proper application equipment.

For multiple dose measuring, remove fill chamber cap and dispense according to markings on side of bottle.]

[Use Directions for Squeeze-N-Measure Container]

1. Remove the measuring chamber cap and induction seal.
2. Replace cap loosely on measuring chamber to allow venting.
3. Squeeze container gently until liquid fills measuring chamber.
4. Remove measuring chamber cap and dispense into proper application equipment.
5. Replace cap onto measuring chamber and tighten]

SUBTERRANEAN TERMITE CONTROL

General Information

Using this product in and around structures and building construction will prevent and control termite infestations.

To institute a barrier between the wood and the termites in the soil, the chemical dilution must be effectively dispersed in the soil. It is important to remove unnecessary materials that contain cellulose and wood from around foundation walls, crawl spaces (inside of structure), and porches, and fix damaged plumbing and construction grade in order to deny termite access to moisture.

To use this product effectively, it is important that the service technician be familiar with current termite control practices including trenching, rodding, sub-slab injection, low-pressure spray application, coarse fan spraying of

soil surfaces, crack and crevice (void) injection, excavated soil treatment, and brush or spray applications to infested or susceptible wood. Using these techniques correctly is essential to prevent or control infestations by subterranean termite species of genera *Coptotermes*, *Heterotermes*, *Reticulitermes* and *Zootermopsis*. When determining what procedures to follow, the service technician should consider certain variables such as biology and behavior of the termite species, structure design, heating ventilation, and air conditioning (HVAC) systems, water table, soil type and compaction, grade conditions, and the location and type of domestic water supplies and utilities.

For information concerning the most up to date control practices in a given region or locale, consult the local resources for structural pest control, state cooperative extensions, and regulatory agencies.

Important: The following precautions must be observed to avoid contamination of public and private water supplies:

- Use anti-backflow equipment or procedures to prevent siphonage of insecticide into water supplies.
- Do not contaminate cisterns, wells, or other water tanks by treating the soil beneath these structures.
- Do not treat soil that is water saturated or frozen.
- Do not treat soil where runoff may occur.
- Consult state and local specifications for recommended treatment practices in your area.
- If local or state specifications do not exist, consult the Federal Housing Administration Specifications (H.U.D.) guidance documents.

Note: For the purpose of this label, crawl spaces are defined as being inside of the structure.

Critical Areas: Points at which the foundation is penetrated or abuts another structure are Critical Areas. These include utility entry points, cracks and expansion joints, bath traps and adjacent structures such as stairs, patios and slab additions.

Structures with Wells/ Cisterns Inside Foundations

Structures that contain wells or cisterns within the foundation of a structure can only be treated using the following techniques:

1. Do not treat soil while it is beneath or within the foundation or along the exterior perimeter of a structure that contains a well or cistern. The treated backfill method must be used if soil is removed and treated outside/away from the foundation. The treated backfill technique is described as follows:
 - a) Trench and remove soil to be treated onto heavy plastic sheeting or similar material or into a wheelbarrow.
 - b) Treat the soil at the rate of 4 gallons of dilute emulsion per 10 linear feet per foot of depth of the trench, or 1 gallon per 1.0 cubic feet of soil. See "Mixing Directions" section of this label. Mix thoroughly into the soil taking care to contain the liquid and prevent runoff or spillage.
 - c) After the treated soil has absorbed the diluted emulsion, replace the soil into the trench.
2. Treat infested and/or damaged wood in place using an injection technique such as described in the "Control of Wood Infesting Insects" section of this label.

Structures with Adjacent Wells/ Cisterns and/or Other Water Bodies

Applicators must inspect all structures with nearby water sources such as wells, cisterns, surface ponds, streams, and other bodies of water and evaluate, at a minimum, the treatment recommendations listed below prior to making an application

1. Prior to treatment, if feasible, expose the water pipe(s) coming from the well to the structure, if the pipe(s) enter the structure within 3 feet of grade.
2. Prior to treatment, applicators are advised to take precautions to limit the risk of applying the termiticide into subsurface drains that could empty into any bodies of water. These precautions include evaluating whether application of the termiticide to the top of the footer may result in contamination of the subsurface drain. Factors such as depth to the drain system and soil type and degree of compaction should be taken into account in determining the depth of the treatment.
3. When appropriate (i.e., on the water side of the structure), the treated backfill technique (described above) can also be used to minimize off-site movement of termiticide.

Before these techniques are used close to cisterns, wells, or other bodies of water, seek advice from local, state or federal agencies for information on treatment practices that are acceptable in your area.

Application Rate:

Use a 0.06% dilution for subterranean termites. For other pests on the label use specific listed rates.

Mixing Directions: Mix the termiticide use dilution in the following manner:

1. Fill tank $\frac{1}{4}$ to $\frac{1}{2}$ full.
2. Start pump to begin by-pass agitation and place end of treating tool in tank to allow circulation through hose.
3. Add appropriate amount of Bifen 7.9 SC.
4. Add remaining amount of water.
5. Let pump run and allow recirculation through the hose for 2 to 3 minutes.

Bifen 7.9 SC may also be combined into full tanks of water. If combined into full tanks of water, allow sufficient time for agitation and/or recirculation to ensure consistency or dilution.

To prepare a 0.06% water dilution, ready to use, dilute 3 quarts of Bifen 7.9 SC with 99.25 gallons of water.

Mixing:

Using the chart below, determine the volume of Bifen 7.9 SC and water to produce the desired volume of finished dilution.

Amount of Bifen 7.9 SC (Gallons except where noted)			
Emulsion Concentrate	Amount of Bifen 7.9 SC	Amount of Water	Desired Gallons of Finished Emulsion
0.06%	1 oz.	127 oz.	1
	5 oz.	4.9	5
	10 oz.	9.9	10
	25 oz.	24.8	25
	1.5 qt.	49.6	50
	2.25 qt.	74.4	75
	3 qt.	99.25	100
	4.5 qt.	148.8	150
0.12%*	6 qt.	198.5	200
	2 oz.	126 oz.	1
	10 oz.	4.9	5
	19.5 oz.	9.8	10
	1.5 qt.	24.6	25
	3 qt.	49.2	50
	4.5 qt.	73.8	75
	6 qt.	98.5	100
	9 qt.	147.7	150
	3	197	200
*When treating for termites, use this rate only in conjunction with volume adjustments, foam applications or underground services applications as listed below.			
Common units of measure: 1 pint = 16 fluid ounces (oz.) 1 quart = 2 pints = 4 cups = 32 fluid ounces (oz.)			

Application Volume: To provide maximum control and protection against termite infestation apply the specified volume of the finished water emulsion and active ingredient as set forth in the directions for use section of this label. If soil will not accept the labeled application volume, the volume may be reduced provided there is a corresponding increase in concentration so that the amount of active ingredient applied to the soil remains the same.

Note: Large reductions of application volume reduce the ability to obtain a continuous barrier. Variance is allowed when volume and concentration are consistent with the label directed rates and a continuous barrier can still be achieved.

The volume of the 0.12% emulsion may be reduced by ½ the labeled volume where desirable for pre- and post-construction applications. When the volume is reduced, the hole spacing for subslab injection and soil rodding may also need to be adjusted to account for lower volume dispersal of the termiticide in the soil. Consult the following Volume Adjustment Chart for details.

VOLUME ADJUSTMENT CHART		
Rate (% emulsion)	0.06%	0.12%
Volume allowed		
Horizontal (gallons emulsion/10 ft ²)	1.0 gallons	0.5 gallons
Vertical (gallons emulsion/10 linear ft.)	4.0 gallons	2.0 gallons

After treatment: All holes in commonly occupied areas into which Bifen 7.9 SC has been applied must be plugged. Plugs must be of a non-cellulose material or covered by an impervious, non-cellulose material.

Foam Applications

Bifen 7.9 SC emulsion, from 0.06 to 0.12% may be converted to foam with 2X – 40X expansion characteristics and used to control or prevent termite infestations.

Depending on the circumstances, foam applications may be used alone or in combination with liquid emulsion applications. Applications may be made behind veneers, piers, chimney bases, into rubble foundations, into block voids or structural voids, under slabs, stoops, porches, or to the soil in crawlspaces, and other similar voids.

Foam and liquid application must be consistent with volume and active ingredient instructions in order to insure proper application has been made. The volume and amount of active ingredient are essential to an effective treatment. At least 75% of the labeled liquid emulsion volume of product must be applied, with the remaining percent delivered to appropriate areas using foam application. Refer to label and use recommendations of the foam manufacturer and the foaming equipment manufacturer.

Foam applications are generally a good supplement to liquid treatments in difficult areas, but may be used alone in difficult spots.

Application Under Slabs or to Soil in Crawlspaces to Prevent or Control Termites

When making applications, Bifen 7.9 SC foam can be used alone or in combination with liquid emulsion. Whether applied as a emulsion, foam, or some of both, the equivalent of at least 4 gallons of 0.06% emulsion (4 ounces of Bifen 7.9 SC concentrate) per 10 linear feet must be applied for vertical barrier, or at least 1 gallon of 0.06% emulsion (1 ounce of Bifen 7.9 SC concentrate) per 10 square feet must be applied for a horizontal barrier. For a foam only application, apply Bifen 7.9 SC concentrate in sufficient concentration and volume to equal 4 ounces of concentrate per 10 linear feet or 1 ounce of concentrate per 10 square feet. For example, 2 gallons of 0.12% emulsion converted to foam and used to cover 10 linear feet is the equivalent of 4 gallons of 0.06% emulsion per 10 linear feet.

Sand Barrier Installation and Treatment

As long as termites have access to soil that has not been treated and can avoid soil that has been treated with Bifen 7.9 SC, they can build mud tubes over surfaces that have been treated. Cracks and spaces should be filled with play box or builder's sand and then treated in the same manner as soil. Follow the rates listed in the Bifen 7.9 SC label.

Retreatment for subterranean termites can only be performed if there is clear evidence of reinfestation or disruption of the barrier due to construction, excavation, or landscaping and/or evidence of the breakdown of the termiticide barrier in the soil. These vulnerable or reinfested areas may be retreated in accordance with application techniques described in this product's labeling. The timing and type of these retreatments will vary depending on factors such as termite pressure, soil types, soil conditions and other factors which may reduce the effectiveness of the barrier.

Annual retreatment of the structure is prohibited unless there is clear evidence that reinfestation or barrier disruption has occurred.

Application in Conjunction with Termite Baits

As part of an IPM (integrated pest management) program for termite control, Bifen 7.9 SC may be applied to areas of the structure with known or suspected infestations such as plumbing, utility entry sites, bath traps, expansion joints, and foundation cracks at a rate of 0.06% as a spot treatment or complete barrier treatment. Applications may be made as described in the **Post Construction Subterranean Termite Treatment** section of this label.

Pre-Construction Subterranean Termite Treatment

Do not apply at a lower dosage and/or concentration than specified on this label for applications prior to the installation of the finished grade.

When treating foundations deeper than 4 feet, apply the termiticide as the backfill is being replaced, or if the construction contractor fails to notify the applicator to permit this, treat the foundation to a minimum depth of 4 feet after the backfill has been installed. The applicator must trench and rod into the trench or trench along the foundation walls and around pillars and other foundation elements, at the rate prescribed from grade to a minimum depth of 4 feet. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. However, in no case should a structure be treated below the footing.

To produce effective pre-construction subterranean termite control, create vertical and/or horizontal chemically treated zones of protection using 0.06% emulsion of Bifen 7.9 SC. Follow the current edition of the Housing and Urban Development Minimum Property Standards to assure that F.H.A. termite-proofing requirements are met.

Horizontal Barriers

Establish a horizontal chemical barrier wherever treated soil will be covered by a slab, such as basement floors, carports, entrance platforms, footing trenches, and slab floors.

Apply 1 gallon of 0.06% emulsion per 10 square feet, or use 1 fluid ounce of Bifen 7.9 SC per 10 square feet in sufficient water (no less than ½ gallon or more than 2 gallons) to provide a uniform treated barrier for the area being treated.

If the fill is coarse aggregate, such as washed gravel, a sufficient volume of emulsion must be applied to allow it to reach the soil beneath for coarse fill.

Make applications with a low-pressure spray (less than 50 p.s.i.) using a coarse spray nozzle. If foundation walls have not been installed around the treated soil and the slab will not be poured the same day as treatment, the treated soil must be covered with a water-proof barrier. Polyethylene sheeting may be used for this purpose.

Vertical Barriers

Vertical barriers must be established in Critical Areas such as along the inside of foundation walls, plumbing, bath traps, utility services and other features that will penetrate the slab.

Using a 0.06% emulsion, apply 4 gallons of emulsion per 10 linear feet per foot of depth or 4 fluid ounces of Bifen 7.9 SC per 10 linear feet per foot of depth from grade level to the top of the footing in sufficient water (not less than 2 gallons or more than 8 gallons) to provide a uniform treated barrier.

When trenching and rodding into the trench, or trenching, ensure that the emulsion reaches the top of the footing. Space rod holes so that a continuous treated barrier is created, but not exceeding 12 inches apart. Avoid soil wash-out around the footing. Trenches should be about 6 inches wide and 6 inches deep. Mix the chemical emulsion with the soil as it is being replaced in the trench. Inside vertical barriers may not be required for monolithic slabs.

When treating hollow block voids, use 2 gallons of emulsion per 10 linear feet to assure that the emulsion reaches the top of the footing..

Prior to each application, applicators must notify the general contractor, construction superintendent, or similar responsible party, of the intended termiticide application and intended sites of application and instruct the responsible person to notify construction workers and other individuals to leave the area to be treated during application and until the termiticide is absorbed into the soil.

Post Construction Subterranean Termite Treatment

For a post-construction treatment, use a 0.06% emulsion. Post-construction treatments shall be made by subslab injection, trenching and rodding into the trench or trenching using a low-pressure spray not exceeding 25 p.s.i at the nozzle. Proper precautions should be taken to avoid soil wash-out around the footing.

Locate, identify, and mark wells, electrical conduits, water and sewer lines, and radiant heat pipes prior to application of Bifen 7.9 SC. Do not puncture or inject Bifen 7.9 SC into these structures.

Basements

Treatment must be made by trenching and rodding into the trench, or trenching at the rate of 4 gallons of emulsion per 10m linear feet per foot of depth wherever the footing, from grade to the bottom of the foundation, is greater than 1 foot of depth. When the footer is greater than four feet below grade, the applicator may trench and rod into the trench, or trench beside foundation walls at the rate designated for four feet of depth. Space rod holes to create a continuous insecticidal barrier, but in no case more than 12 inches apart. Depending on the type of soil, degree of compaction and location of termite activity, the actual depth of treatment will differ. However, a structure should never be treated below the footer. Sub-slab injection may be needed beside the inside of foundation walls, around conduits, piers, and pipes, beside both sides of interior footing-supported walls, and beside cracks and partition walls.

Accessible Crawl Spaces: For crawl spaces, apply vertical termiticide barriers at the rate of 4 gallons of emulsion per 10 linear feet per foot of depth from grade to the top of the footing, or if the footing is more than 4 feet below grade, to a minimum depth of 4 feet. Apply by trenching and rodding into the trench, or trenching. Treat both sides of foundation and around all piers and pipes. Where physical obstructions such as concrete walkways adjacent to foundation elements prevent trenching, treatment may be made by rodding alone. When soil type and/or conditions make trenching prohibitive, rodding may be used. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. Read and follow the mixing and use direction section of the label if situations are encountered where the soil will not accept the full application volume.

1. Rod holes and trenches must not extend below the bottom of the footing.
2. Rod holes must be spaced so as to achieve a continuous termiticide barrier but in no case more than 12 inches apart.
3. Trenches must be a minimum of 6 inches deep or to the bottom of the footing, whichever is less, and need not to be wider than 6 inches. When trenching in sloping (tiered) soil, the trench must be stepped to ensure adequate distribution and prevent termiticide from running off. The emulsion must be mixed with the soil as it is replaced in the trench.
4. When treating plenums or crawl spaces, turn off the air circulation system of the structure until application has been completed and all termiticide has been absorbed by the soil.

Inaccessible Crawl Spaces: For inaccessible interior areas, such as areas where there is insufficient clearance between floor joists and ground surfaces to allow operator access, excavate if possible, and treat according to the instruction for accessible crawl spaces. Otherwise, apply one or a combination of the following two methods.

1. To establish a horizontal barrier, apply to the soil surface, 1 gallon of emulsion per 10 square feet overall using a nozzle pressure of less than 25 p.s.i. and a coarse application nozzle (e.g., Delavan® Type RD Raindrop®, RD-7 or larger, or Spraying Systems Co. 8010LP TeeJet® or comparable nozzle). For an area that cannot be reached with the application wand, use one or more extension rods to make the application to the soil. Do not broadcast or powerspray with higher pressures.
2. To establish a horizontal barrier, drill through the foundation wall or through the floor above and treat the soil perimeter at a rate of 1 gallon of emulsion per 10 square feet. Drill spacing must be at intervals not to exceed 16 inches. Many states have smaller intervals, so check State regulations which may apply.

When treating plenums and crawl spaces, turn off the air circulation systems of the structure until application has been completed and all termiticide has been absorbed by the soil.

Excavation Technique: If treatment must be made in difficult situations, along fieldstone or rubble walls, along faulty foundation walls, and around pipes and utility lines which lead downward from the structure to a well or pond, apply using the following technique:

- a. Prepare a trench, placing the removed soil into heavy-weight plastic sheeting or similar, water-impermeable material.
- b. Treat the soil with 4 gallons of 0.06% emulsion per 10 linear feet per foot of depth of the trench. Completely mix the emulsion into the soil exercising care to avoid liquid running off the sheeting.
- c. Place the treated soil back into the trench after it has absorbed the emulsion.

Attention: Wear NIOSH approved unvented goggles and a respirator when applying Bifen 7.9 SC in a confined area.

Foundations

For applications made after the final grade is installed, the applicator must trench and rod into the trench or trench along the foundation walls and around pillars and other foundation elements, at the rate prescribed from grade to the top of the footing. When the footing is more than four (4) feet below grade, the applicator must trench and rod into the trench or trench along the foundation walls at the rate prescribed to a minimum depth of four feet. The actual depth of treatment will vary depending on soil type, degree of compaction, and location of termite activity. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. However, in no case should a structure be treated below the footing.

Masonry Voids: Drill and treat voids in multiple masonry elements of the structure extending from the structure to the soil in order to create a continuous treatment barrier in the area to be treated. Apply at a rate of 2 gallons of emulsion per 10 linear feet of footing, using a nozzle pressure of less than 25 p.s.i. When using this treatment, access

holes must be drilled below the sill plate and should be as close as possible to the footing as is practical. Treatment of voids in block or rubble foundation walls must be closely examined: Applicators must inspect areas of possible runoff as a precaution against application leakage in the treated areas. Some areas may not be treatable or may require mechanical alteration prior to treatment.

All leaks resulting in the deposition of termiticide in locations other than those prescribed on this label must be cleaned up prior to leaving the application site. Do not allow people or pets to contact contaminated areas or to reoccupy the contaminated areas of the structure until the clean-up is completed.

Note: When treating behind veneer structures (walls, etc.) take proper care to not drill beyond the veneer. If concrete blocks exist behind the veneer, both can be drilled and treated simultaneously.

Bifen 7.9 SC may not be used in voids insulated with rigid foam insulation.

Slabs

Create vertical barriers by trenching and rodding into the trench or trenching outside at the rate of 4 gallons of emulsion per 10 linear feet per foot of depth and by sub-slab injection within the structure. Ensure an even distribution of chemical. Applications must not be made below the bottom of the footing.

Apply beside the outside of the foundation and under the slab on the inside of foundation walls, where needed. Treatment of slabs may also be necessary under and beside both sides of any interior footing-supported walls, in all cracks and expansion joints, and beside one side of interior partitions. By long-rodding or grid pattern injection vertically through the slab, horizontal barriers may be created where necessary.

- a. To permit the creation of an uninterrupted insecticidal barrier, drill holes in the foundation and/or slab.
- b. For foundations that are less than or equal to 1 foot, dig a narrow trench about 6 inches wide beside the outside of the foundation walls. Do not dig beneath the bottom of the footing. As the soil is placed back into the trench, apply 4 gallons of 0.06% emulsion per 10 linear feet per foot of depth to the trench and soil.
- c. For foundations that are deeper than 1 foot, follow the rates stated above for basements
- d. A 0.06% emulsion may be used to treat exposed and wood in bath traps.

SPECIFIC PEST CONTROL APPLICATIONS

Underground Services such as, but not limited to: wires, cables, utility lines, pipes, conduits, etc. Services may be within structures, in right-of-ways or to protect long range (miles) of installations of services.

To prevent attack by termites and ants, apply 0.06 to 0.12% Bifen 7.9 SC emulsion to the soil.

Apply to the bottom of the trench at the rate of 2 gallons of emulsion per 10 linear feet. Let the emulsion be absorbed into the soil. Lay services on the treated soil and cover with about 2 inches of fill soil. Apply another 2 gallons per 10 linear feet over the soil surface to complete the chemical barrier. In wide trenches, only the soil near the services should be treated. A continuous barrier of treated soil surrounding the services must be established.

In cases where the soil will not accept the above labeled volume, 1 gallon of 0.12% Bifen 7.9 SC may be used per 10 linear feet of trench. Apply both to the bottom of the trench and over the soil on top of the services.

Fill the trench with treated fill soil. Treat the soil where each service sticks out from the ground by trenching/rodding of not more than 1 to 2 gallons of emulsion into the soil.

Precautions: Do not treat electrically active underground services.

Posts, Poles, and Other Constructions: Around wooden constructions such as signs, fences and landscape ornamentation an insecticidal barrier can be established by treating with a 0.06% emulsion. Sub-surface injection and gravity-flow through holes in the bottom of the trench, are two treatment methods that can be used on poles and posts that have already been installed. A complete chemical barrier around the pole can be established by treating on all sides. For poles and posts less than six inches in diameter use 1 gallon of emulsion per foot of depth and for larger poles, use 1.5 gallons of emulsion per foot of depth. Apply to a depth of 6 inches below the bottom of the wood. For larger constructions, use 4 gallons per 10 linear feet per foot of depth.

Treatment of Wood-in-Place for Control of Wood-Infesting Insects: (Localized Areas in Structure) For the control of insects such as Termites, Ants, Carpenter Ants, and wood-infesting beetles such as Old House Borer and

Powder Post in localized areas of infested wood in and around structures, apply a 0.06% emulsion to voids and galleries in damaged wood and in spaces between wooden members of a structure and between wood and foundations where wood is at risk. Paint on or fan spray applications may also be used. Place plastic sheeting under overhead areas that are spot treated except for soil surfaces in crawl spaces. Areas in which access is difficult may be treated by drilling, and then injecting the emulsion with a crack and crevice injector into the damaged wood or void spaces. This type of application is not intended to be a substitute for soil treatment, mechanical alteration or fumigation to control extensive infestation of wood-infesting insects.

To control termite carton nests in trees or building voids inject with a 0.06% emulsion. Multiple injection points to varying depths may be necessary. Carton nest material should be removed from building voids when nests are discovered.

Control of Bees and Wasps Indoors: To control Bees, Wasp, Hornets, and Yellow-Jackets, apply a 0.06% emulsion. Application should be made in the late evening when insects are at rest. Spray liberally into hiding and breeding places, especially under attic rafters, contacting as many insects as possible. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Repeat application is necessary only if there are signs of renewed insect activity.

Important: Do not apply emulsion until location of heat pipes, ducts, water and sewer lines and electrical conduits are known and identified. Caution must be taken to avoid puncturing and injection into these structural elements. Do not apply into electrical fixtures, switches, or sockets.

In the home, all food processing surfaces and utensils in the treatment area should be covered during treatment or thoroughly washed before re-use. Remove pets, birds, and cover aquariums before spraying. Do not permit humans or pets to contact treated surfaces until the spray has dried.

During any overhead applications to overhead interior areas of structures, cover surfaces below with plastic sheeting or similar materials.

Wear protective clothing, unvented goggles, gloves and respirator, when applying to overhead areas or in poorly ventilated areas. Avoid touching sprayed surfaces until spray has completely dried.

Broadcast Treatment of Wood for the Control of Wood-infesting Insects and Nuisance Pests: (Outside of Structure) In order to control wood-infesting insects active inside trees, utility poles and/or fence posts, drill to the interior infested cavity and inject a 0.06% emulsion. If treating nuisance pests on the exterior of the structure, apply a 0.06% emulsion with a fan spray using a maximum pressure of 25 psi. and apply just to the point of run-off. To control Bees, Wasps, Hornets, and Yellow-Jackets, direct the spray at nest openings in the ground, bushes, and in cracks and crevices. Saturate nest openings and contact as many insects as possible. Apply in late evening when insects are at rest.

Pests Under Slabs: To control infestations of Arthropods, such as ants, cockroaches and scorpions living beneath the slab area, drill and inject, or horizontal rodding and then inject 1 gallon of a 0.06% to 0.12% emulsion per 10 square feet or 2 gallons of emulsion per 10 linear feet.

Formula for Determining the Active Ingredient Content of the Finished Spray Mixture: The following formula may be used to determine the percent active ingredient that is in the spray tank after mixing Bifen 7.9 SC:

$$\frac{(7.9\%) \times (\text{Fl. oz. of Bifen 7.9 SC added to tank})}{(\text{Gallons of finished spray mix}) \times (128)} = \text{Percent Active Ingredient of spray mix}$$

LAWNS AND ORNAMENTALS

General Application Instructions

Bifen 7.9 SC may be mixed with water and other aqueous carriers for the control of insects and mites on trees, shrubs, foliage plants, non-bearing (perennial crops that will not produce a harvestable raw agricultural commodity during the season of application) fruit and nut trees, and flowers in landscapes including hotels, shopping malls, office buildings, etc., and outdoor plantscapes, such as around residential dwellings, parks, institutional buildings, recreational areas, athletic fields and home lawns.

Bifen 7.9 SC may be tank-mixed with insect growth regulators as well as other pesticides. Observe all precautions and the Directions for Use for each tank mix product. Physical compatibility of Bifen 7.9 SC may vary with different combinations of products, and local cultural practices. Prepare a small scale (pint or quart jar) test sample for any combination not tested previously. Use the proper proportions of pesticides and water to make sure of the compatibility of the mixture.

Unless otherwise noted, follow the procedure below to prepare a tank mix:

- 1) Add wettable powders to tank water
- 2) Agitate
- 3) Add liquids and flowables
- 4) Agitate
- 5) Add emulsifiable concentrates
- 6) Agitate

Try reversing the order of addition, or increasing the amount of water if the combination is not compatible using the order listed above.

Note: After increasing the amount of water, if the mixture is found to be compatible, it will be necessary to recalibrate the sprayer for the higher volume application. Do not allow mixture to stand overnight.

Resistance: Some insects may develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or state pest management authorities for details.

If resistance to this product develops in your area, this product, or other products with similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and suspect that resistance is a reasonable cause, immediately consult your local company representative or pest management advisor for the best alternative method of control in your area.

Lawn Application Recommendations

Apply Bifen 7.9 SC as a broadcast treatment. For uniform control when applying to dense grass foliage, use volumes of up to 10 gallons per 1,000 square feet.

To ensure control of sub-surface pests, including but not limited to Mole Crickets, using low volume applications (less than 2 gallons per 1,000 square feet) immediately follow treatment with irrigation of treated area with at least 0.25 inches of water.

Application Rates

Under typical conditions, the application rates shown in the table below will provide control of the listed pests. Follow the application rates listed in the table below for typical pest pressure. Bifen 7.9 SC may be applied at up to 1 fl. oz. per 1000 square feet at the discretion of the applicator. Use the higher application rate for maximum residual control.

Pest	Application Rate	Application Instructions
Armyworms Cutworms Sod Webworm	0.18 - 0.25 fl. oz. per 1,000 sq. ft.	For best results, postpone watering (irrigation) or mowing for 24 hours after application. Higher treatment rates (up to 1 fluid oz. per 1000 square feet) may be necessary if high pest pressure exists and grass is maintained taller than 1 inch.
Annual Bluegrass Weevil (Hyperodes) (Adult) Banks Grass Mite Billbugs (Adult) Black Turfgrass Ataenius Adult Centipedes Chinch Bugs	0.25 - 0.5 fl. oz. per 1,000 sq. ft.	Annual Bluegrass Weevil (<i>Hyperodes</i>) adults: Treatment should be timed as they travel into grass away from their overwintering sites. Travel usually begins when <i>Forsythia</i> is in full bloom and concludes when flowering dogwood (<i>Cornus florida</i>) is in full bloom. For additional detailed information, check with your State Cooperative Extension Service. Billbug adults: Treatment should be made when adult billbugs are first noticed in April and May. To optimize treatment, degree day models have been developed. For additional detailed information, check with your State Cooperative Extension Service. Spring treatments for billbug adults will also offer control of over-wintered chinch bugs in temperate climates.

Crickets Earwigs Fleas (Adult) Grasshoppers Leafhoppers Mealybugs Millipedes Mites Pillbugs Sowbugs		<p>Black Turfgrass Ataenius adults: To control the first and second generation of black turfgrass ataenius adults, respectively, treatments should take place in May and July. Time the May treatment to coincide with the full bloom stage of Vanhoutte spiraea (<i>Spiraea vanhoutte</i>) and horse chestnut (<i>Aesculus hippocastanum</i>). Time the July treatment to coincide with the blooming Rose of Sharon (<i>Hibiscus syriacus</i>).</p> <p>Chinch Bugs: Mostly found in the thatch layer, Chinch bugs infest the base of grass plants. In order to optimize the penetration of the insecticide to location of the chinch bugs, irrigation of the grass prior to treatment may be necessary. If the grass is kept at a long mowing height or if the thatch layer excessive, use higher volume treatments. It may be necessary to use higher application rates (up to 1 fluid oz. per 1000 square feet) to control Chinch Bug populations made up of both nymphs and adults in mid summer.</p> <p>Mites: Apply in combination with a labeled application rate of a surfactant to achieve optimal control of eriophyid mites. A second application may be needed, five to seven days after the first, to ensure optimal control.</p>
Crane Flies ¹²	0.5 fl. oz. per 1,000 sq. ft.	<p>Applications should be made August – February to control early to mid-season larvae as they feed on plant crowns. Applications made March – April to late-season larvae may aid in suppression.</p>
Ants Fleas (Larvae) Imported Fire Ants Japanese Beetle (Adult) Mole Cricket (Adult) Mole Cricket (Nymph) Ticks	0.5 - 1.0 fl. oz. per 1,000 sq. ft.	<p>Flea larvae: Flea larvae mature in shaded areas accessible to pets or other animals. When treating these areas use a higher volume treatment so that the insecticide penetrates into the soil. Note: If the lawn area is being treated with Bifen 7.9 SC at 0.25 fluid ounces per 1000 square feet for adult flea control, then the larval application rate can be accomplished by a two- to four-fold increase in spray volume.</p> <p>Imported Fire Ants: For best control use broadcast treatments in combination with mound drenches. This will control present colonies along with foraging workers and newly mated fly-in queens. It is critical either to use high volume treatments or to irrigate prior to application if the soil is dry. Apply 1 fluid oz. per 1,000 square feet when using broadcast treatments. For mound drenches, dilute 1 teaspoon of Bifen 7.9 SC per gallon of water and use 1 to 2 gallons of finished spray per mound using sufficient force to penetrate the top and allow the emulsion to flood ant channels. Treat a four foot diameter around each ant mound. Application should be made in late evening or early morning when it is cooler (65-80°F). Note: A spray rig calibrated to apply 1 fluid oz. per 1,000 square feet of Bifen 7.9 SC in 5 gallons per 1,000 square feet contains the equivalent emulsion (1 teaspoon per gallon) required for fire ant mound drenches in the spray tank.</p> <p>Mole Cricket adults: Since the preferred grass areas are subject to constant invasion in early spring by the active adult stage, it can be difficult to maintain control of adult mole crickets. Make treatments as late in the day as possible and follow with up to 0.5 inches of water after treatment. To ensure maximum contact with the insecticide when the soil is dry, irrigate prior to treatment to bring the adult mole crickets closer to the soil surface. To Obtain optimal control of potential nymphal populations, the grass areas preferred by adult mole crickets in the should be treated immediately prior to peak hatch stage. (see below).</p> <p>Mole Cricket nymphs: To obtain optimal control of potential nymphal populations, the grass areas preferred by adult mole crickets in the spring should be treated immediately prior to peak hatch stage. Young nymphs are more vulnerable to insecticidal treatment at this stage because they are close to the soil surface where the insecticide is most effective. Use higher application rates and frequent applications to control larger, more damaging, nymphs later in the year. Make treatments as late in the day as possible and water immediately with up to 0.5 inches of water. To ensure maximum contact with the insecticide when the soil is dry, irrigate prior to treatment to bring the adult mole crickets closer to the soil surface.</p> <p>Ticks (including ticks that may transmit Lyme Disease and Rocky Mountain Spotted Fever): Make application to the entire area where contact with ticks may occur. Do not make spot treatments. When applying</p>

		<p>to areas with heavy leaf litter or dense ground cover use higher spray volumes. To attain and/or sustain control in times of high pest pressure, retreatments may be necessary; retreat only if signs of continued or renewed tick activity are present. Repeat treatments should not be made more often than once per seven days.</p> <p>Deer ticks (<i>Ixodes sp.</i>) have a four-stage life cycle spanning 2 years. Treat in the late fall and/or early spring to control adult ticks located on brush or grass above the soil surface and in mid to late spring to control larvae and nymphs that live in the soil and leaf litter.</p> <p>American dog ticks invade suburban settings in areas where residences and dwellings are constructed on former fields or wooded areas. These pests normally gather by paths or roadways where they are likely to find a host. To control tick larvae, nymphs and adults, treatments should take place, as needed, from mid spring to early fall.</p>
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In New York State:

1. This product may not be applied to any grass or turf area within 100 feet of a water body (lake, pond, river, stream, wetland, or drainage ditch).
2. A single repeat application of Bifen 7.9 SC may be made if there are signs of renewed insect activity, but not sooner than two weeks after the first application.

Calculating Dilution Rates: To determine the proper dilution of Bifen 7.9 SC that is required to control specific pests, follow the steps below:

- 1) Determine the target pest requiring the highest application rate for effective control in the **Application Rates** chart.
- 2) Choose the treatment rate in terms of fluid oz. of Bifen 7.9 SC.
- 3) Determine the dilution volume necessary for the treatment in the **Dilution Chart**.
- 4) Use the proper amount of Bifen 7.9 SC that must be mixed in your desired volume of water as shown in the **Dilution Chart**.

For example, to control ticks the Application Rates table shows that 0.5 to 1.0 fluid ounces of Bifen 7.9 SC should be applied per 1,000 square feet. You select an application rate of 1.0 fluid oz. per 1,000 square feet because maximum residual control is desired. Your application volume is approximately 10 gallons per 1,000 sq. ft. Consulting the Lawn Dilution Chart reveals that you should dilute 1.0 fluid oz. of Bifen 7.9 SC in 10 gallons of water.

Lawn Application Dilution Chart

Application Volume	Application Rate	Fluid Ounces* of Bifen 7.9 SC Diluted to these Volumes of Finished Spray			
		1 gallon	5 gallons	10 gallons	100 gallons
1.0	0.18	0.18	0.90	1.8	18.0
1.0	0.25	0.25	1.25	2.5	25.0
1.0	0.5	0.5	2.5	5.0	50.0
1.0	1.0	1.0	5.0	10.0	100.0
2.0	0.18	-	0.45	0.90	9.0
2.0	0.25	0.13	0.63	1.25	12.5
2.0	0.5	0.25	1.25	2.5	25.0
2.0	1.0	0.5	2.5	5.0	50.0
3.0	0.18	-	0.30	0.60	6.0
3.0	0.25	-	0.42	0.83	8.3
3.0	0.5	0.17	0.83	1.67	16.7
3.0	1.0	0.33	1.67	3.33	33.3
4.0	0.18	-	0.23	0.45	4.5
4.0	0.25	-	0.31	0.63	6.3
4.0	0.5	0.13	0.63	1.25	12.5
4.0	1.0	0.25	1.25	2.5	25.0
5.0	0.18	-	0.18	0.36	3.6
5.0	0.25	-	0.25	0.5	5.0
5.0	0.5	0.1	0.5	1.0	10.0

5.0	1.0	0.2	1.0	2.0	20.0
10.0	0.18	-	-	0.18	1.8
10.0	0.25	-	0.13	0.25	2.5
10.0	0.5	-	0.25	0.5	5.0
10.0	1.0	0.1	0.5	1.0	10.0

*To convert to millimeters, multiply by 29.57

1 fluid ounce = 29.57 ml = 2 tablespoons = 6 teaspoons

Do not use household utensils to measure Bifen 7.9 SC.

Ornamentals and Trees Application Recommendations

Bifen 7.9 SC is for use on, but not limited to, trees, shrubs, ground covers, bedding plants, and foliage plants. Treat with 0.125 to 1.0 fl. oz. of Bifen 7.9 SC per 1,000 square feet or 5.4 to 43.5 fl. oz. per 100 gallons. Bifen 7.9 SC may be diluted and used in different volumes of water as long as the maximum label rate (1.0 fluid oz. per 1,000 square feet or 43.5 fl. oz. per 100 gallons) is not exceeded. If diluted with water or other carriers, Bifen 7.9 SC may be applied through low volume application equipment as long as the maximum label rate (1.0 fluid oz. per 1,000 square feet or 43.5 fl. oz. per 100 gallons) is not exceeded.

Treat as a full coverage foliar spray using the stated application rate. If pest pressure and density of foliage increases, repeat treatments using higher rates may be needed to reach the desired control. Repeat treatments should not be made more often than once per 7 days.

Before application to entire planting, test treat a small number of plants and watch for signs of sensitivity. Some plant species may be sensitive to the final spray solution.

To avoid or delay pest resistance, it is recommended to use an alternate class of pesticide in any application program.

Application Rates

Under typical conditions, the application rates in the table below will offer optimal control of the listed pests. Bifen 7.9 SC may be applied at up to 1 fl. oz. per 1000 square feet (43.5 oz. per 100 gallons) at the discretion of the applicator. When maximum residual control is preferred, use the higher treatment rates.

Pest	Application Rate	Application Instructions
Bagworms Cutworms Elm Leaf Beetles Fall Webworms Gypsy Moth Caterpillars Lace Bugs Leaf Feeding Caterpillars Tent Caterpillars	0.125 - 0.25 fl. oz. per 1,000 sq. ft. (5.4 - 10.8 fl. oz. per 100 gal.)	Bagworms: For optimum control treat when larvae have started to hatch and are young, directing spray to contact as many larvae as possible.
Adelgids† Ants Aphids Bees Beet Armyworm Beetles† Black Vine Weevil (Adults) Brown Soft Scales Broad Mites Budworms California Red Scale (Crawlers) Centipedes Cicadas† Citrus Thrips Clover Mites Crickets Diaprepes (Adults) Earwigs European Red Mite Flea Beetles	0.25 - 0.5 fl. oz. per 1,000 sq. ft. (10.8 - 21.7 fl. oz. per 100 gal.)	Beetles, Scale Crawlers, Twig Borers, and Weevils: Apply to plant foliage; also treat trunks, stems and twigs.

Fungus Gnats (Adults) Grasshoppers Japanese Beetle (Adult) [†] Leafhoppers Leafrollers Mealybugs Millipedes Mites Mosquitoes Orchid Weevil Pillbugs Pine Needle Scales (Crawlers) Plant Bugs (Including <i>Lygus</i> spp.) Psyllids [†] San Jose Scales (Crawlers) Scorpions Sowbugs Spider Mites Spiders Spittlebugs [†] Thrips Tip Moths Treehoppers [†] Twig Borers Wasps Weevils Whiteflies		
Imported Fire Ants ^{**} Leafminers Pecan Leaf Scorch Mite Pine Shoot Beetle (Adults) Spider Mites	0.5 - 1.0 fl. oz. per 1,000 sq. ft. (21.7 - 43.5 fl. oz. per 100 gal.)	Spider Mites: Apply during spring and summer for most effective control of twospotted spider mites. During mid- to late-summer it may be necessary to make more frequent treatments, possibly at higher rates to achieve suitable control. Control may be enhanced by adding a surfactant or horticultural oil or by combining Bifen 7.9 SC with other products registered to control mites. Applications of Bifen 7.9 SC may be alternated with chemicals offering other modes of action in programs that are designed to manage resistance by twospotted spider mites. For recommendations on resistance management in your region check with your local Cooperative Extension Service.
**For foraging ants. †Not for use in California.		

Calculating Dilution Rates: To determine the proper dilution of Bifen 7.9 SC that is required to control specific pests, follow the steps below:

- 1) Determine the target pest requiring the highest application rate for effective control in the **Application Rates** chart.
- 2) Choose the treatment rate in terms of fluid oz. of Bifen 7.9 SC.
- 3) Determine the dilution volume necessary for the treatment in the **Dilution Chart**.
- 4) Use the proper amount of Bifen 7.9 SC that must be mixed in your desired volume of water as shown in the **Dilution Chart**.

For example, to control black vine weevil adults on rhododendron, the Application Rates table shows that 0.25 to 0.5 fluid ounces of Bifen 7.9 SC should be applied per 1,000 square feet. You select an application rate of 0.5 fluid oz. per 1,000 square feet because maximum residual control is desired. Your application volume is approximately 300 gallons per acre, which is equivalent to 6.9 gallons per 1,000 square feet. Consulting the Ornamental Dilution Chart reveals that you should dilute 0.72 fluid oz. of Bifen 7.9 SC in 10 gallons of water.

Ornamental Application Dilution Chart

Application Volume Gallons Per		Application Rate Fl. oz. per 1,000 sq. ft.	Fluid Ounces* of Bifen 7.9 SC Diluted to these Volumes of Finished Spray			
1,000 sq. ft.	Acre		1 gallon	5 gallons	10 gallons	100 gallons
2.3	100	0.125	-	0.27	0.54	5.4
2.3	100	0.25	0.11	0.54	1.08	10.8

2.3	100	0.5	0.22	1.09	2.17	21.7
2.3	100	1.0	0.44	2.17	4.35	43.5
4.6	200	0.125	-	0.14	0.27	2.7
4.6	200	0.25	-	0.27	0.54	5.4
4.6	200	0.5	0.11	0.54	1.09	10.9
4.6	200	1.0	0.22	1.09	2.17	21.7
6.9	300	0.125	-	-	0.18	1.8
6.9	300	0.25	-	0.18	0.36	3.6
6.9	300	0.5	-	0.36	0.72	7.2
6.9	300	1.0	0.15	0.72	1.45	14.5

*To convert to millimeters, multiply by 29.57

300 gallons per acre is a typical application volume for landscape ornamental applications.

1 fluid ounce = 29.57 ml = 2 tablespoons = 6 teaspoons

Do not use household utensils to measure Bifen 7.9 SC.

Pest Control on Outside Surfaces and Around Buildings

Bifen 7.9 SC may be used to control the following pests:

Ants	Clover Mites	Grasshoppers	Silverfish
Carpenter Ants	Crickets	Hornets	Sod Webworms
Fire Ants	Cutworms	Japanese Beetles [†]	Sowbugs (Pillbugs)
Armyworms	Dichondra Flea	Midges	Spider Mites
Bees	Beetles	Millipedes	Spiders (including
Beetles	Earwigs	Mosquitoes	Black Widow
Biting Flies	Elm Leaf Beetles	Moths	Spiders)
Boxelder Bugs	Firebrats	Roaches	Springtails
Centipedes	Fleas	(including	Ticks (including
Chiggers	Flies	Cockroaches)	Brown Dog Ticks)
Chinch Bugs	Gnats	Scorpions	Wasps

[†]Not for use in California.

Application Recommendations

Use a 0.02 to 0.06% dilution to spray outside surfaces of buildings including, but not limited to, exterior siding, foundations, porches, window frames, eaves, patios, garages, refuse dumps, lawns such as grass areas adjacent or around private homes, duplexes, townhouses, condominiums, house trailers, apartment complexes, carports, garages, fence lines, storage sheds, barns, and other residential and non-commercial structures, soil, trunks of woody ornamentals and other areas where pests congregate or have been seen. Use a spray volume of up to 10 gallons of dilution per 1,000 square feet. Use higher application volumes if vegetation or landscape materials are dense.

Mixing Directions: For 0.02% suspension, mix 0.33 fluid oz. of Bifen 7.9 SC per gallon of water. For 0.06% suspension, mix 1 fluid oz. Bifen 7.9 SC per gallon of water (1 fluid oz. = 2 tablespoons). Do not use household utensils to measure Bifen 7.9 SC. Use the higher rates for heavy pest infestation, quicker knockdown or longer residual control. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Repeat application only if there are signs of renewed insect activity. Repeat application limited to once per seven days.

Perimeter Treatment: Treat a band of soil and vegetation 6 to 10 feet wide around and next to the structure and the foundation of the structure to a height of 2 to 3 feet. Use 0.33 to 1.0 fluid oz. of Bifen 7.9 SC per 1,000 square feet in enough water to provide sufficient coverage (refer to Perimeter Application Dilution Chart).

For Ant and Fire Ant Mounds use Bifen 7.9 SC 0.06% dilution as Drench Method: Use 1-2 gallons of dilution for each mound area. Sprinkle the mound until wet and apply to a 4 foot diameter circle around the mound. For mounds larger than 12", use a higher volume. Applications should be made in cool weather, such as in early morning or late evening hours, not in the heat of the day.

Mosquito Control: To control mosquitoes around buildings, landscapes, and lawns, dilute 0.33 to 1.0 fl. oz. of Bifen 7.9 SC per gallon of water and apply at the rate of one gallon of dilution per 1,000 square feet as a general

spray. Bifen 7.9 SC may be diluted at lower concentrations and applied at higher volumes to ensure the proper amount of product per area (refer to the Ornamental or Perimeter Application Dilution Charts).

Calculating Dilution Rates: The following steps should be taken to determine the appropriate dilution of Bifen 7.9 SC that is required to control specific pests:

- 1) Select an application rate in of fluid oz. of Bifen 7.9 SC.
- 2) Determine your application volume and amount of spray mix you want to prepare in the **Dilution Chart**.
- 3) Use the **Dilution Chart** to determine the appropriate volume of Bifen 7.9 SC that must be mixed in your desired volume of water.

Perimeter Application Dilution Chart

Application Volume Gallons Per	Application Rate Fluid Ounces Per	Fluid Ounces* of Bifen 7.9 SC Diluted to these Volumes of Finished Spray			
		1 gallon	5 gallons	10 gallons	100 gallons
1000 sq. ft.	1000 sq. ft.	1 gallon	5 gallons	10 gallons	100 gallons
1	0.33	0.33	1.67	3.33	33.3
1	0.5	0.5	2.5	5.0	50.0
1	0.67	0.67	3.33	6.67	66.7
1	0.75	0.75	3.75	7.5	75.0
1	1.0	1.0	5.0	10.0	100.0
2	0.33	0.17	0.83	1.65	16.5
2	0.5	0.25	1.25	2.5	25.0
2	0.67	0.33	1.67	3.35	33.5
2	0.75	0.38	1.88	3.75	37.5
2	1.0	0.5	2.5	5.0	50.0
3	0.33	0.11	0.55	1.10	11.0
3	0.5	0.17	0.83	1.67	16.7
3	0.67	0.22	1.11	2.23	22.3
3	0.75	0.25	1.25	2.5	25.0
3	1.0	0.33	1.67	3.33	33.3
4	0.33	-	0.41	0.83	8.3
4	0.5	0.13	0.63	1.25	12.5
4	0.67	0.17	0.84	1.67	16.7
4	0.75	0.19	0.94	1.88	18.8
4	1.0	0.25	1.25	2.5	25.0
5	0.33	-	0.33	0.67	6.7
5	0.5	0.1	0.5	1.0	10.0
5	0.67	0.13	0.67	1.33	13.3
5	0.75	0.15	0.75	1.5	15.0
5	1.0	0.2	1.0	2.0	20.0
10	0.33	-	0.17	0.33	3.3
10	0.5	-	0.25	0.5	5.0
10	0.67	-	0.33	0.67	6.7
10	0.75	-	0.38	0.75	7.5
10	1.0	0.1	0.5	1.0	10.0

*To convert to milliliters, multiply by 29.57

1 fluid oz. = 29.57 ml = 2 tablespoons = 6 teaspoons

Do not use household utensils to measure Bifen 7.9 SC.

INDOOR USE

Bifen 7.9 SC may be used for residual pest control in buildings and structures and on modes of transport. For control of ants, bees, beetles, boxelder bugs, carpet beetles, centipedes, clothes moths, cockroaches, crickets, earwigs, firebrats, flies, gnats, midges, millipedes, pillbugs, scorpions, silverfish, sowbugs, spiders, ticks and wasps.

In the home, all food processing surfaces and utensils should be covered during treatment or thoroughly washed before reuse. Exposed food should be covered or removed. Do not permit humans or pets to contact treated surfaces until the spray has dried. During any overhead applications to overhead interior areas of structures, cover surfaces below with plastic sheeting or similar materials.

Wear protective clothing, unvented goggles, gloves and respirator when applying to overhead areas in poorly ventilated areas. Avoid touching sprayed surfaces until sprays have completely dried.

Application Recommendations

Apply to areas where pests hide. These areas include, but are not limited to, baseboards, corners, storage areas, closets, around water pipes, doors and windows, attics and eaves, behind and under refrigerators, cabinets, sinks, furnaces, stoves, the underside of shelves, drawers and similar areas. Treat with a low-pressure spray (25 psi or less), coarse, crack and crevice, pinstream, spot or with a paint brush. Pay close attention to cracks and crevices. Not for use as a space spray.

Mixing Directions: Prepare a dilution of Bifen 7.9 SC for spray or brush application. See mixing directions in "Pest Control on Outside Surfaces and Around Buildings" section (page XX).

- Fill sprayer with the required amount of water.
- Add Bifen 7.9 SC.
- Close sprayer and shake to ensure proper mixing.
- Prepare only the amount of solution necessary for treatment.

In order to achieve and/or maintain control in times of high pest pressure, retreatment may be needed. Repeat application should only take place if there are signs of renewed insect activity and should not exceed one application per 7 days.

Application Rates: For 0.02% suspension, mix 0.33 fluid oz. of Bifen 7.9 SC per gallon of water. For 0.06% suspension, mix 1 fluid oz. Bifen 7.9 SC per gallon of water (1 fluid oz. = 2 tablespoons). Do not use household utensils to measure Bifen 7.9 SC. Use the higher rates for heavy pest infestation, quicker knockdown or longer residual control.

Pest	Application Rate	Application Instructions
Ants Bedbugs Bees Beetles Boxelder bugs Carpet beetles Centipedes Clothes moths Cockroaches Crickets Earwigs Firebrats Flies Gnats Midges Millipedes Pillbugs Scorpions Silverfish Sowbugs Spiders Ticks Wasps	0.33 – 1.0 fl. oz. per gallon of water (0.02% - 0.06% suspension)	<p>Ants: Apply to ant trails, around doors and windows and other places that ant frequent.</p> <p>Bedbugs: To help control of Bedbugs, apply thoroughly to crack and crevices where bedbugs frequent. This includes bed frames, box springs, inside empty dressers and clothes closets, carpet edges, wall moldings (high and low), and wallpaper edges. Do not use on bed linens, pillows, mattresses, or clothes. Before application, remove all clothes and other articles from dressers or clothes closets. Allow all treated areas to dry before use. Not recommended for use as sole protection against bedbugs. If evidence of bedbugs is found in/on mattresses, use a product approved for this use.</p> <p>Bees and Wasps: Apply to nest in late evening when pests are at rest. Spray nests and surrounding areas thoroughly. Spray nests, entrances to nests and surrounding areas thoroughly. Contact as many insects as possible. Retreat if signs of renewed activity exist.</p> <p>Boxelder Bugs, Centipedes, Earwigs, Beetles, Millipedes, Pillbugs, and Sowbugs: Treat around doors, windows, baseboards, storage areas and other locations where pests may be found.</p> <p>Cockroaches, Crickets, Firebrats, Scorpions, Silverfish, Spiders, and Ticks: Use a coarse, low pressure spray to areas where pests hide. These areas include baseboards, corners, storage areas, closets, around water pipes, doors and windows, attics and eaves, behind and under refrigerators, cabinets, sinks, furnaces, and stoves, the underside of shelves, drawers, and similar areas. Pay close attention to cracks and crevices.</p>

Food/Feed Handling Establishments

Bifen 7.9 SC, when used as a general spot, surface, or crack and crevice treatment, may be applied in both food/feed and nonfood areas of food/feed handling establishments.

Food/feed handling establishments are any place other than private residences where exposed food/feed is held, processed, prepared or served, including areas for receiving, storing, packing (canning, bottling, wrapping, boxing),

preparing, enclosed processing systems (mills, dairies, edible oils, syrups) of food and edible waste storage. Serving areas where food is exposed and the facility is in operation are also considered food areas.

Non-food areas in which applications are allowed include garbage rooms, lavatories, floor drains (to sewers), entries and vestibules, offices, locker rooms, machine rooms, garages, mop closets and storage (after canning or bottling).

Some of the use sites that are allowed include: Aircraft (do not use in aircraft cabins), apartment buildings, bakeries, bottling facilities, breweries, buses, cafeterias, candy plants, canneries, dairy product processing plants, food manufacturing plants, food processing plants, food service establishments, granaries, grain mills, hospitals, hotels, industrial buildings, laboratories, meat/poultry/egg processing plants, mobile/motor homes, nursing homes, offices, railcars, restaurants, schools, ships, trailers, trucks, vessels, warehouses and wineries.

General Surface Application: Do not use this application method in food/feed handling establishments when the facility is in operation or foods/feeds are exposed. During treatment, remove or cover all food processing and/or handling equipment and do not apply directly to food products. All equipment, benches, shelving and other surfaces in food processing plants, bakeries, cafeterias, and other facilities, which food will contact must be washed after treatment. Clean food handling equipment or processing equipment and rinse completely with fresh, clean water.

Spot, Crack and Crevice Application: These types of treatments can be done when the facility is operating, but food should be covered or removed from the treatment area. Do not apply directly to food.

Foam Applications: Converting Bifen 7.9 SC to foam will allow it to be used to treat structural voids. To produce a 0.02% to 0.06% foam concentration, dilute 0.33 to 1.0 fl. oz. of Bifen 7.9 SC per gallon of water and add the manufacturer's recommended amount of foaming agent. Before application, make sure that the foaming agent is compatible with Bifen 7.9 SC.

TERMITE CONTROL (ABOVE GROUND ONLY)

The treatment methods that are expressed below are intended to kill termite workers or winged reproductives present at the time of application. These methods should supplement, not substitute for, mechanical alteration, soil treatment or foundation treatment.

Controlling winged reproductive termites and exposed workers in localized areas can be accomplished by diluting 1.0 fluid ounce of Bifen 7.9 SC per gallon of water and applying the dilution at the rate of one gallon per 1,000 square feet to attics, crawl spaces, unfinished basements and other void areas as a coarse fan spray. Both swarming termites and the areas where they gather should be treated.

Controlling above-ground termites in localized areas of infested wood may be accomplished by diluting 1.0 fluid oz. of Bifen 7.9 SC per gallon of water and applying as a liquid or foam to voids and galleries in wood that is damaged, in addition to spaces between wooden structural members and between the sill plate and foundation where the wood is at risk to attack. Drilling and then injecting the foam or dilution into damaged wood or wall voids with an appropriate directional injector will help reach those areas that are not easy to access. After treatment is completed, securely plug the holes that are in regularly occupied areas in the construction elements.

Controlling termite carton nests in building voids can be accomplished by diluting 1.0 fluid oz. of Bifen 7.9 SC per gallon of water and apply as a liquid or foam using a pointed injection tool. To obtain control, various depths of injection and numerous injection points may be needed. After treatment is complete and when feasible, remove the carton nest material from the building void.

ANT CONTROL

Nuisance Ants Indoors: Apply to ant nests for best results. Apply a dilution of 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per gallon of water at the rate of one gallon of dilution per 1,000 square feet to places where ants have been seen or are believed to forage as a general surface, crack and crevice or spot treatment. Some of these areas include, but are not limited to, baseboards, in and behind cabinets, under and behind dishwashers, furnaces, refrigerators, sinks and stoves, around pipes, cracks and crevices and in corners. Pay close attention when treating entry points into the home or around doors and windows. When combining liquid Bifen 7.9 SC treatments with bait treatments, use Bifen 7.9 SC as instructed above and apply baits in those areas where Bifen 7.9 SC has not been applied. Do not apply as a broadcast or general surface treatment in residential areas.

Nuisance Ants Outdoors: Apply to ant nests for best results. Treat ant trails, around doors and windows, and other places where ants have been seen or are likely to forage. Treat using a low or high volume perimeter treatment

depending on the density of vegetation and landscape materials as described in the "Pest Control on Outside Surfaces and Around Buildings" section of this label. When treating concrete surfaces, more frequent treatments, higher dilutions and/or application volumes may be needed for ant control. The following procedure will normally allow optimal control:

1. Non-porous surfaces should be treated with low volume applications using 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per gallon of water and applying this dilution at the rate of one gallon per 1,000 square feet.
2. Vegetation and porous surfaces should be treated with high volume applications using dilutions that are calculated to deliver 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per 1,000 square feet (refer to the Ornamental and Perimeter Application Dilution Charts).
3. Dilute 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per gallon of water and apply at a rate of up to 10 gallons of dilution per 1,000 square feet for maximum residual control.

Carpenter Ants Indoors: Treat areas where carpenter ants are seen or are predicted to forage, such as baseboards, in and behind cabinets, under and behind dishwashers, furnaces, refrigerators, sinks, and stoves, around pipes, cracks and crevices, and in corners by diluting 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per gallon of water and applying at the rate of one gallon of dilution per 1,000 square feet as a general surface, crack and crevice or spot and/or foam treatment. Pay close attention to treating entry points into the home or premises such as around doors and windows. Spray or foam into cracks into crevices or drill holes and spray, mist or foam into voids and galleries where carpenter ants or their nests are present. When combining liquid Bifen 7.9 SC treatments with bait treatments, use Bifen 7.9 SC as instructed above and apply baits in those areas where Bifen 7.9 SC has not been applied. Do not apply as a broadcast or general surface treatment in residential areas.

Carpenter Ants Outdoors: Treat carpenter ant nests for best results. Treat areas where carpenter ants are seen or are believed to forage, such as ant trails, around doors and windows. As stated in "Pest Control on Outside Surfaces and Around Buildings" section, apply using a low or high volume perimeter treatment of this label. When treating concrete surfaces, more frequent treatments, higher dilution and/or application volumes may be needed for carpenter ant control. Following the procedure below will normally allow optimal control:

1. Treat non-porous surfaces with low volume applications using 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per gallon of water and applying this dilution at the rate of one gallon per 1,000 square feet.
2. Bifen 7.9 SC may be used as a treatment for the trunks of trees that have carpenter ant trails, or where carpenter ants are foraging. Use 0.5 to 1.0 fl. oz. of Bifen 7.9 SC per gallon of water and apply this dilution to wet the bark from the base of the tree to as high as possible on the trunk.
3. Vegetation and porous surfaces should be treated with high volume applications using dilutions that are calculated to deliver 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per 1,000 square feet (refer to the Ornamental and Perimeter Application Dilution Charts).
4. Dilute 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per gallon of water and apply at a rate of up to 10 gallons of dilution per 1,000 to obtain maximum residual control.

To control carpenter ants inside trees, utility poles, fencing or deck materials and similar structural members, drill to find the inside infested cavity and inject or foam a 0.06% dilution (1.0 fl. oz. of Bifen 7.9 SC per gallon of water) into the cavity with adequate volume and a proper treatment tool with a splash-back guard.

Where there are ants tunneling below the surface, dilute 0.5 to 1.0 fluid ounces of Bifen 7.9 SC per gallon of water and applying as a drench or inject the dilution or foam at intervals of 8 to 12 inches. A uniform vertical barrier should be established where there are ants tunneling below surfaces such as at the edges of walls, driveways or other hard surfaces.

Apply a 0.06% dilution to stored lumber or wood piles using a sprinkling can or a hose-end sprayer to deliver a coarse drenching spray. This wood may be used for lumber or burned after 30 days. Do not use this method of application in structures.

The soil under the area where firewood will be stacked may be treated with a dilution of 1.0 fluid oz. of Bifen 7.9 SC per gallon of water to protect the firewood from carpenter ants (and termites). Apply at the rate of one gallon of dilution per 8 square feet. DO NOT treat firewood with this product.

STORAGE AND DISPOSAL

Prohibition: Do not contaminate water, food, or feed by storage or disposal.

Residue Storage: Keep out of reach of children and animals. Store in cool, dry place and avoid excess heat.

Clearly open containers. After partial use replace lid and close tightly. Do not put contents or other material into food or drink container.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Contain spill.

Spill Cleanup: If liquid, absorb surrounding area or absorb with sand, cat litter, or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Residue Disposal: Residue wastes are toxic. Do not contaminate water, food, or feed by storage or disposal.

Impound disposal of excess product, spray residue, or material for violation of Federal Law. Disposal of excess or waste product by us according to label directions, or contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative in the nearest EPA Regional Office for guidance.

Container Disposal: Non-refillable containers. Do not reuse or refill the container. Offer for recycling, if available. Triple-rinse or pressure-rinse container (or equivalent) promptly after emptying.

Non-refillable container less than or equal to 5 gallons: Triple-rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour waste into application equipment or mix tank or store minutes for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Non-refillable container greater than 5 gallons: Triple-rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution for 10 seconds. Stand the container on its end and tip back and forth several times. Empty the rinsate into application equipment or a mix tank or store minutes for later use or disposal. Repeat this procedure two more times.

Pressure-rinse as follows (all sizes): Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure-rinse nozzle in the side of the container and rinse at about 40 PSI for at least 10 seconds. Drain for 10 seconds after the flow begins to drip.

Refillable container: Refill the container with product only. Do not reuse this container for any other purpose.

Cleaning the container before final disposal is the responsibility of the person disposing of the container. **Cleaning before refilling** is the responsibility of the refiller.

To clean the container before final disposal, empty the remaining contents from the container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing process two more times.

For help with any spill, leak, fire or exposure involving this material, call by night CHEMTREC 1-800-424-9300.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

BEFORE BUYING OR USING THIS PRODUCT, read the entire Directions for Use and the following Conditions of Sale and Limitation of Warranty and Liability. By buying or using this product, the buyer or user accepts the following Conditions of Sale and Limitation of Warranty and Liability, which are a part of the purchase agreement, and which are authorized to vary in any way.

Follow the Directions for Use of this product carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop or other plant injury, ineffectiveness, or other unintended consequences may result from such risks as weather or crop conditions, mixtures with other chemicals not specifically identified in this product's label, or use of this product contrary to the label instructions, all of which are beyond the control of ARSOL USA, LLC and the seller. The buyer or user of this product assumes all such inherent risks.

Subject to the foregoing inherent risks, ARSOL USA, LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use when the product is used in strict accordance with such Directions for Use under normal conditions of use. EXCEPT AS WARRANTED IN THIS LABEL, THIS PRODUCT IS SOLD AS IS TO THE EXTENT ALLOWED BY APPLICABLE LAW. ARSOL USA, LLC MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE.

TO THE EXTENT ALLOWED BY APPLICABLE LAW, THE BUYERS OR USERS EXCLUSIVE REMEDY FOR ANY INJURY, LOSS, OR DAMAGE RESULTING FROM THE HANDLING OR USE OF THIS PRODUCT, INCLUDING BUT NOT LIMITED TO CLAIMS OF BREACH OF WARRANTY OR CONTRACT, NEGLIGENCE, STRICT LIABILITY, OR OTHER TORTS, SHALL BE LIMITED TO ONE OF THE FOLLOWING, AT THE ELECTION OF AXSS USA, LLC OR THE SELLER: DIRECT DAMAGES NOT

EXCEEDING THE PURCHASE PRICE OF THE PRODUCT OR REPLACEMENT OF THE PRODUCT. TO THE EXTENT ALLOWED BY APPLICABLE LAW, AXSS USA, LLC AND THE SELLER SHALL NOT BE LIABLE TO THE BUYER OR USER OF THIS PRODUCT FOR ANY CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES, OR DAMAGES IN THE NATURE OF A PENALTY.

Actisol® is a registered trademark of Environmental Delivery Systems, Inc.

Delavan® is a registered trademark of Delavan Spray, LLC.

Firstline® is a registered trademark of FMC Corporation.

Patriot Injector® is a registered trademark of Unifix USA, LLC.

Raindrop® is a registered trademark of GP Companies, Inc.

TeeJet® is a registered trademark of Spraying Systems Company.

EPA Reg. No. 83520-3

EPA Est. No. XXXXX-XX-XXX

Net Contents: _____

Manufactured by:
Axss USA, LLC
1100 Platte Falls Road
Platte City, Missouri 64079

NOTIFICATION

JUN 02 2009

MATERIAL TO BE ADDED TO JACKET

REG #

83520-3

Description:

Minor change to the basic

Q Alternate CSF

check all that apply		
<input type="checkbox"/>	new stamped accepted label	Send to CSC
<input checked="" type="checkbox"/>	new CSF	
<input checked="" type="checkbox"/>	notification	

Instructions:

Attach this sheet to the top of **ALL** material sent to the file room (both loose paper and new material in jackets). This sheet will be imaged; a clear description will aid in finding material in the e-jacket. Remove staples from all material. If returning loose paper then hold together with a binder or paper clip. CSFs should be placed in the CSF folder (if returning jacket) or covered with a red CBI sheet (if returning loose paper). Material to be returned to file room should be place in the appropriate bin.

Reviewer's

Name:

Sherada Hobgood

Date:

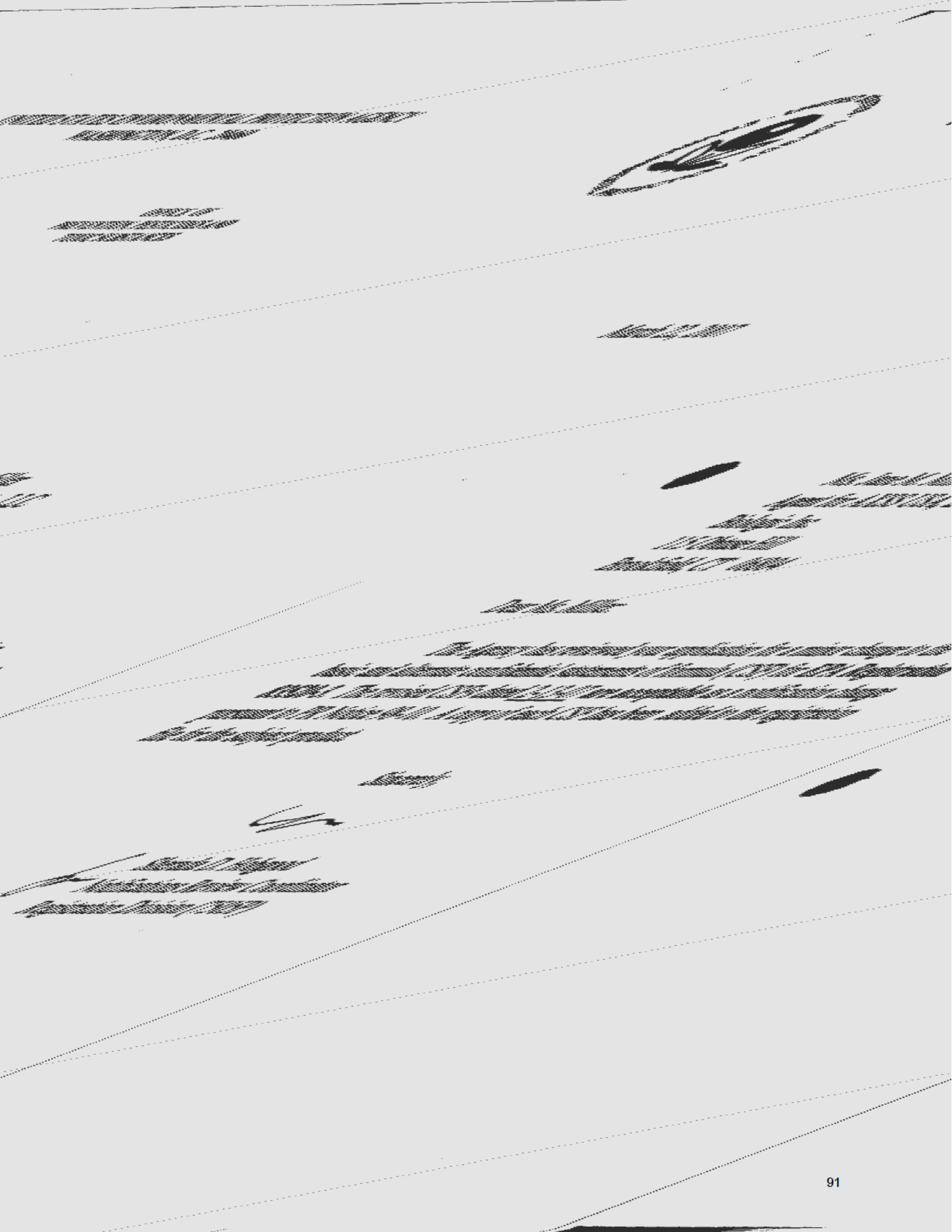
10-21-09

Phone:

308-8893

Division:

RD



3/22

February 13, 2007

Document Processing Desk (APPL)
Office of Pesticide Programs (7504P)
US Environmental Protection Agency
One Potomac Yard
2777 S. Crystal Drive
Room S-4900, 4th Floor
Arlington, VA 22202

Attention: Mr. G. LaRocca (PM #13)
RE: Axss USA, LLC
"Bifen 7.9 SC"; EPA Reg. No. 83520-3
Submission of Final Labeling, and revised CSF's and Formulator's Exemption Statement

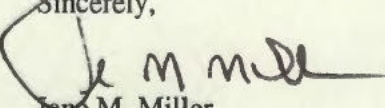
Dear Mr. LaRocca:

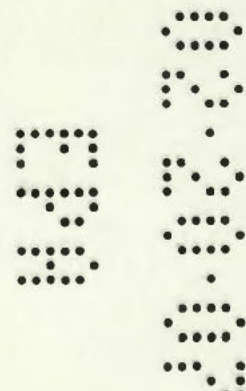
On behalf of Axss USA, LLC please find enclosed the following as per the EPA Notice of Pesticide Registration dated January 9, 2007:

1. Three (3) copies of final labeling with corrections.
2. One (1) revised basic and alternate CSF
3. One (1) revised Formulator's Exemption Statement
4. One (1) CRP certification

Should you have any questions or wish to reach me, please feel free to contact our office at (203) 740-1200.

Sincerely,


Jane M. Miller
Agent to Axss USA, LLC





United States
Environmental Protection Agency
Washington, DC 20460

☐ Registration
☐ Amendment
☒ Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number 83520-3	2. EPA Product Manager G. LaRocca	3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Bifen 7.9 SC	PM# 13	
5. Name and Address of Applicant (Include ZIP Code) Axss USA, LLC 1100 Platte Falls Road Platte City, MO 64079 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input checked="" type="checkbox"/> Final printed labels in response to Agency letter dated Jan. 9, 2007
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below. MAR 2 2 2007

NOTIFICATION

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

As per the EPA Notice of Pesticide Registration Dated January 9, 2007, please find three (3) copies of final labeling, a revised basic and alternate CSF and a revised Formulator's Exemption Statement.

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____	
* Notification must be submitted		If "Yes" Unit Packaging wgt. No. per container	If "Yes" Package wgt. No. per container		
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container		5. Location of Label Directions <input type="checkbox"/> on label	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input type="checkbox"/> Other _____			

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)			
Name Jane M. Miller	Title Agent	Telephone No. (Include Area Code) (203) 740-1280	
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment both under applicable law.			6. Date Application Received (Stamped)
2. Signature	3. Title Agent		
4. Typed Name Jane M. Miller	5. Date February 13, 2007		



United States
Environmental Protection Agency
Washington, DC 20460
Formulator's Exemption Statement
(40 CFR 152.85)

Applicant's Name and Address

Axss USA, LLC
1100 Platte Falls Road
Platte City, MO 64079

EPA File Symbol/Registration Number

83520-3

Product Name

Bifen 7.9 SC

Date of Confidential Statement of Formula (EPA Form 8570-4)

February 13, 2007

As an authorized representative of the applicant for registration of the product identified above, I certify that:

(1) This product contains the following active ingredient(s):

Bifenthrin

(2) Of these, each active ingredient listed in paragraph (4) is present solely as the result of the use of that active ingredient in the manufacturing, formulation or repackaging another product which contains that active ingredient which is registered under FIFRA Section 3, is purchased by us from another producer, and is labeled for at least each use for which my product is proposed to be labeled.

(3) Indicate by checking (A) or (B) below which paragraph applies:

☒ (A) An accurate Confidential Statement of Formula (EPA FORM 8570-4) for the above identified product is attached to this statement. That formula statement indicates, by company name, registration number, and product name, the source of the active ingredient(s) listed in paragraph (1).

OR

☐ (B) The Confidential Statement of Formula (CSF) (EPA Form 8570-4) referenced above and on file with the EPA is complete, current, and accurate and contains the information required on the current CSF.

(4) The following active ingredients in this product qualify for the formulator's exemption.**Source**

Active Ingredient	Product Name	Registration Number
Bifenthrin Technical		
<p>*Product ingredient source information may be entitled to confidential treatment*</p>		
Signature	Name and Title	Date
	Jane M. Miller, Consultant	2/13/2007

CHILD RESISTANT PACKAGING CERTIFICATION

PRODUCT NAME: Bifen 7.9 SC

EPA REG. NO./FILE NO.: 83520-3

I certify that the packaging used for this product meets the standards of 40 CFR 157.32, including the revised standards in 16 CFR 1700.15(b), when tested by the revised testing procedures in 16 CFR 1700.20, as published in 60 FR 37710 (July 21, 1995).

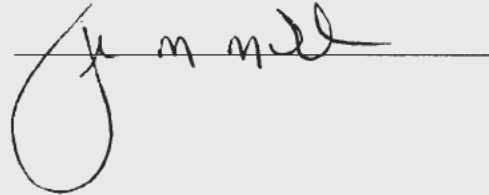
The type of packaging used for this product is a two-piece reclosable continuously threaded closure with a random push down while turning, ASTM Type IA with an F-Style HDPE single opening bottle.

Package sizes include: 2.0 gallon

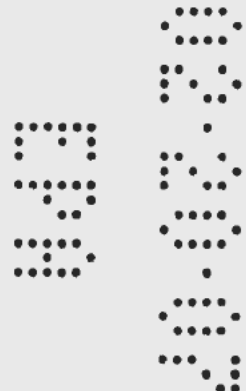
COMPANY NAME & ADDRESS:

Axss USA, LLC
1100 Platte Falls Road
Platte City, MO 64079

SIGNATURE:



DATE: 2/13/2007



Bracketed text [] optional language

Bifen 7.9 SC

[Multi Use Insecticide]

[Mixes Easily with Water]

[Controls a Wide Range of Insects and Mites on Trees, Shrubs, Flowering Plants, Non-Bearing Fruit and Nut Trees, and Flowers as listed below]

[Controls Pests Indoors and Outdoors on Residential, Institutional, Public, Commercial, and Industrial Buildings, and Lawns, Ornamentals, Parks, Recreational Areas and Athletic Fields.]

[For Use in Interiorscapes including Hotels, Shopping Malls, and Office Buildings]

[For Use in Outdoor Plantscapes including Residential Dwellings, Parks, Institutional Buildings, Recreational Areas, Athletic Fields, and Home Lawns]

[Prevents and Controls Termites [In] [and] [Around] [Structures] [and] [Constructions]

[Prevents and Controls Ticks (including ticks that may transmit Lyme Disease and Rocky Mountain Spotted Fever)

[For the Control of Deer ticks (Ixodes sp.)]

[<PRODUCT NAME> contains Bifenthrin, the active ingredient used in <BRAND NAME>TM or ®.]

[<PRODUCT NAME> is not manufactured or distributed by <BASIC REGISTRANT / BRAND HOLDER>, seller of <BRAND>TM or ®.]

[<BRAND>TM or ® is a trademark of <TRADEMARK HOLDER>.]

When used as a Termiticide, Individuals/ Firms must be licensed by the State to apply termiticide products. States may have more restrictive requirements regarding qualifications of persons using this product. Consult the pest control regulatory agency of your State prior to use of this product.

Active Ingredient:

Bifenthrin*.....

Other Ingredients:

Total.....

By Wt.

7.9%

92.1%

100.0%

Contains 3/4 pound active ingredient per gallon.

*Cis isomers 97% minimum, trans isomers 3% maximum.

KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID

If swallowed	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continuing rinsing eye. • Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For a medical emergency involving this product, call 1-800-301-7976.

Note to Physician - This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Caution - Harmful if swallowed, inhaled, or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove contaminated clothing and wash before reuse.

All pesticide handlers (mixers, loaders, and applicators) must wear long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves. After the product is diluted in accordance with label directions for use, and/or when mixing and loading using a closed spray tank transfer system, or an in-line injector system, shirt, pants, socks, shoes, and waterproof gloves are sufficient. In addition, all pesticide handlers must wear a respiratory protection device when working in a non-ventilated space (one of the following NIOSH approved respirator with any R, P or HE filter or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R,P or HE prefilter). All pesticide handlers must wear protective eyewear when working in non-ventilated space or when applying termiticide by rodding or sub-slab injection.

Environmental Hazards

This pesticide is extremely toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters. Care should be used when spraying to avoid fish and reptile pets in/around ornamental ponds.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow to drift to blooming crops if bees are visiting the treatment area.

Physical and Chemical Hazards

Do not apply water-based dilutions of Bifen 7.9 SC to electrical conduits, motor housings, junction boxes, switch boxes or other electrical equipment because of possible shock hazard.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use on plants intended only for aesthetic purposes or climatic modifications and being grown in interior landscapes, ornamental gardens or parks, or lawns and grounds.

RESTRICTIONS:

Do not apply a broadcast application to interior surfaces of homes.

Do not apply this product in patient rooms or in any rooms while occupied by the elderly or infirm.

Do not apply in classrooms when in use.

Do not apply when occupants are present in the immediate area in institutions such as libraries, sports facilities, etc.

Do not allow people or pets on treated surfaces until spray has dried.

Let surfaces dry before allowing people and pets to contact surface.

During any application to overhead areas of structure, cover surface below with plastic sheeting or similar material except for soil surfaces in crawlspaces.

Do not allow spray to contact food, foodstuffs, food-contacting surfaces or food utensils or water supplies.

Thoroughly wash dishes and food handling utensils with soap and water if they become contaminated by application of this product.

Do not treat areas where food is exposed.

During indoor surface applications do not allow dripping or runoff to occur.

Bifen 7.9 SC will not stain, or damage any surface that water alone will not stain or damage.

Do not apply by air.

Do not apply in greenhouses, nurseries.

Do not apply this product through any kind of irrigation system.

Not for use on sod farm turf, golf course turf, or grass grown for seed.

Do not apply to pets, crops, or sources of electricity.

Firewood is not to be treated.

Do not apply this product in livestock buildings (barns).

Do not broadcast apply more than 0.4 lbs. ai/acre per year.

For a complete list of our use, visit our website: www.oxfordjournals.org

[illegible]

When sealing adjacent to an existing structure, the applicator must check the area to be sealed and immediately adjacent areas off the structure, for visible and accessible cracks and holes to prevent any leaks or significant exposures to persons occupying the structure. People present or residing in the structure during application must be advised to remove their pets and themselves from the structure if they see any signs of leakage. After application, the applicator is required to check for leaks. All leaks resulting in the disposition of chemicals in buildings other than those presented on this label must be closed upon completion of the application job. Do not allow people or pets to contact contaminated areas or to occupy contaminated areas off the structure until the clean-up is completed.

11. เขียนและเขียนคำไทยเป็นภาษาอังกฤษและในวงเล็บ: เขียนเป็นภาษาอังกฤษและวงเล็บภาษาไทย. Tip
อ่านและแปล!!! เขียนคำไทยเป็นภาษาอังกฤษ
22. เขียนและเขียนคำไทยเป็นภาษาอังกฤษและในวงเล็บ: เขียนเป็นภาษาอังกฤษและวงเล็บภาษาไทย.
38. เขียนและเขียนคำไทยเป็นภาษาอังกฤษและในวงเล็บ: เขียนเป็นภาษาอังกฤษและวงเล็บภาษาไทย.

From multiple data sources, researchers can identify and describe a condition or condition or condition.

11. តើអ្នកចេះប្រើប្រាស់ប្រព័ន្ធដោតប្រើប្រាស់កុំព្យូទ័រដែរឬទេ?
12. តើអ្នកចេះប្រើប្រាស់ប្រព័ន្ធដោតប្រើប្រាស់កុំព្យូទ័រដែរឬទេ? បើបាទ/បើទេ តើអ្នកចេះប្រើប្រាស់ប្រព័ន្ធដោតប្រើប្រាស់កុំព្យូទ័របានប៉ុន្មានប្រភេទ?
13. តើអ្នកចេះប្រើប្រាស់ប្រព័ន្ធដោតប្រើប្រាស់កុំព្យូទ័រដែរឬទេ? បើបាទ/បើទេ តើអ្នកចេះប្រើប្រាស់ប្រព័ន្ធដោតប្រើប្រាស់កុំព្យូទ័របានប៉ុន្មានប្រភេទ?
14. តើអ្នកចេះប្រើប្រាស់ប្រព័ន្ធដោតប្រើប្រាស់កុំព្យូទ័រដែរឬទេ? បើបាទ/បើទេ តើអ្នកចេះប្រើប្រាស់ប្រព័ន្ធដោតប្រើប្រាស់កុំព្យូទ័របានប៉ុន្មានប្រភេទ?
15. តើអ្នកចេះប្រើប្រាស់ប្រព័ន្ធដោតប្រើប្រាស់កុំព្យូទ័រដែរឬទេ? បើបាទ/បើទេ តើអ្នកចេះប្រើប្រាស់ប្រព័ន្ធដោតប្រើប្រាស់កុំព្យូទ័របានប៉ុន្មានប្រភេទ?

Figure 1. The effect of the number of trials on the mean number of correct responses for the 100 trials condition. The number of correct responses was significantly higher than the number of incorrect responses for all conditions.

Abstract

When the product is used as a construction material, it will prevent and control termite infestation.

The mainline a barrier between the wood and the termites in the soil, the chemical dilution must be effectively absorbed into the soil. This is important to remove unnecessary materials that contain cellulose and wood from around foundation walls, crawl spaces (inside of basement), and porches, and to damaged plumbing and construction grade is smoother to allow termite access to moisture.

To use the product effectively, it is important that the service technician be familiar with current turbine control practices including monitoring, troubleshooting and inspection. How pressure supply applications, conversion, gas inlet

soil surfaces, roads and reserves (potholes), excavated soil treatment, and both on-pipe applications to treated catchmentable world. Using these techniques correctly is essential to prevent or control infestations by urban pest termite species of genera *Coptotermes*, *Reticulitermes*, *Reticulitermes* and *Zootermopsis*. When determining what procedures to follow, the service technician should consider certain variables such as biology and behavior of the termite species, structure design, heating ventilation, and air conditioning (HVAC) systems, water table, soil type and construction quality conditions, and the location and use of domestic water supplies and utilities.

For information concerning the most up-to-date control practices in a given region or locale, consult the local resources for structural pest control, state cooperative extension, and health authorities.

~~Important:~~ The following precaution must be observed to avoid contamination of public and private water supplies:

- [illegible]

Note: For the purpose of this label, crawl spaces are defined as being inside of the structure.

Critical Areas: Points at which the foundation is penetrated or abuts another structure are Critical Areas. These include utility entry points, cracks and expansion joints, bath traps and adjacent structures such as stairs, patios and slab additions.

Structures with Wells/ Cisterns Inside Foundations

Structures that contain wells or cisterns within the foundation of a structure can only be treated using the following techniques:

1. Do not treat soil while it is beneath or within the foundation or along the exterior perimeter of a structure that contains a well or cistern. The treated backfill method must be used if soil is removed and treated outside/away from the foundation. The treated backfill technique is described as follows:
 - a) Trench and remove soil to be treated onto heavy plastic sheeting or similar material or into a wheelbarrow.
 - b) Treat the soil at the rate of 4 gallons of dilute emulsion per 10 linear feet per foot of depth of the trench, or 1 gallon per 1.0 cubic feet of soil. See "Mixing Directions" section of this label. Mix thoroughly into the soil taking care to contain the liquid and prevent runoff or spillage.
 - c) After the treated soil has absorbed the diluted emulsion, replace the soil into the trench.
2. Treat infested and/or damaged wood in place using an injection technique such as described in the "Control of Wood Infesting Insects" section of this label.

Structures with Adjacent Wells/ Cisterns and/or Other Water Bodies

Applicators must inspect all structures with nearby water sources such as wells, cisterns, surface ponds, streams, and other bodies of water and evaluate, at a minimum, the treatment recommendations listed below prior to making an application

1. Prior to treatment, if feasible, expose the water pipe(s) coming from the well to the structure, if the pipe(s) enter the structure within 3 feet of grade.
2. Prior to treatment, applicators are advised to take precautions to limit the risk of applying the termiticide into subsurface drains that could empty into any bodies of water. These precautions include evaluating whether application of the termiticide to the top of the footer may result in contamination of the subsurface drain. Factors such as depth to the drain system and soil type and degree of compaction should be taken into account in determining the depth of the treatment.
3. When appropriate (i.e., on the water side of the structure), the treated backfill technique (described above) can also be used to minimize off-site movement of termiticide.

Before these techniques are used close to cisterns, wells, or other bodies of water, seek advice from local, state or federal agencies for information on treatment practices that are acceptable in your area.

Application Rate:

Use a 0.06% dilution for subterranean termites. For other pests on the label use specific listed rates.

Mixing Directions: Mix the termiticide use dilution in the following manner:

1. Fill tank $\frac{1}{4}$ to $\frac{1}{2}$ full.
2. Start pump to begin by-pass agitation and place end of treating tool in tank to allow circulation through hose.
3. Add appropriate amount of Bifen 7.9 SC.
4. Add remaining amount of water.
5. Let pump run and allow recirculation through the hose for 2 to 3 minutes.

Bifen 7.9 SC may also be combined into full tanks of water. If combined into full tanks of water, allow sufficient time for agitation and/or recirculation to ensure consistency or dilution.

To prepare a 0.06% water dilution, ready to use, dilute 3 quarts of Bifen 7.9 SC with 99.25 gallons of water.

Mixing:

Using the chart below, determine the volume of Bifen 7.9 SC and water to produce the desired volume of finished dilution.

Amount of Bifen 7.9 SC (Gallons except where noted)			
Emulsion Concentrate	Amount of Bifen 7.9 SC	Amount of Water	Desired Gallons of Finished Emulsion
0.06%	1 oz.	127 oz.	1
	5 oz.	4.9	5
	10 oz.	9.9	10
	25 oz.	24.8	25
	1.5 qt.	49.6	50
	2.25 qt.	74.4	75
	3 qt.	99.25	100
	4.5 qt.	148.8	150
	6 qt.	198.5	200
0.12%*	2 oz.	126 oz.	1
	10 oz.	4.9	5
	19.5 oz.	9.8	10
	1.5 qt.	24.6	25
	3 qt.	49.2	50
	4.5 qt.	73.8	75
	6 qt.	98.5	100
	9 qt.	147.7	150
	3	197	200
*When treating for termites, use this rate only in conjunction with volume adjustments, foam applications or underground services applications as listed below.			
Common units of measure: 1 pint = 16 fluid ounces (oz.) 1 quart = 2 pints = 4 cups = 32 fluid ounces (oz.)			

Application Volume: To provide maximum control and protection against termite infestation apply the specified volume of the finished water emulsion and active ingredient as set forth in the directions for use section of this label. If soil will not accept the labeled application volume, the volume may be reduced provided there is a corresponding increase in concentration so that the amount of active ingredient applied to the soil remains the same.

Note: Large reductions of application volume reduce the ability to obtain a continuous barrier. Variance is allowed when volume and concentration are consistent with the label directed rates and a continuous barrier can still be achieved.

The volume of the 0.12% emulsion may be reduced by $\frac{1}{2}$ the labeled volume where desirable for pre- and post-construction applications. When the volume is reduced, the hole spacing for subslab injection and soil rodding may also need to be adjusted to account for lower volume dispersal of the termiticide in the soil. Consult the following Volume Adjustment Chart for details.

VOLUME ADJUSTMENT CHART		
Rate (% emulsion)	0.06%	0.12%
Volume allowed		
Horizontal (gallons emulsion/10 ft ²)	1.0 gallons	0.5 gallons
Vertical (gallons emulsion/10 linear ft.)	4.0 gallons	2.0 gallons

After treatment: All holes in commonly occupied areas into which Bifen 7.9 SC has been applied must be plugged. Plugs must be of a non-cellulose material or covered by an impervious, non-cellulose material.

Foam Applications

Bifen 7.9 SC emulsion, from 0.06 to 0.12% may be converted to foam with 2X – 40X expansion characteristics and used to control or prevent termite infestations.

Depending on the circumstances, foam applications may be used alone or in combination with liquid emulsion applications. Applications may be made behind veneers, piers, chimney bases, into rubble foundations, into block voids or structural voids, under slabs, stoops, porches, or to the soil in crawlspaces, and other similar voids.

Foam and liquid application must be consistent with volume and active ingredient instructions in order to insure proper application has been made. The volume and amount of active ingredient are essential to an effective treatment. At least 75% of the labeled liquid emulsion volume of product must be applied, with the remaining percent delivered to appropriate areas using foam application. Refer to label and use recommendations of the foam manufacturer and the foaming equipment manufacturer.

Foam applications are generally a good supplement to liquid treatments in difficult areas, but may be used alone in difficult spots.

Application Under Slabs or to Soil in Crawlspace to Prevent or Control Termites

When making applications, Bifen 7.9 SC foam can be used alone or in combination with liquid emulsion. Whether applied as a emulsion, foam, or some of both, the equivalent of at least 4 gallons of 0.06% emulsion (4 ounces of Bifen 7.9 SC concentrate) per 10 linear feet must be applied for vertical barrier, or at least 1 gallon of 0.06% emulsion (1 ounce of Bifen 7.9 SC concentrate) per 10 square feet must be applied for a horizontal barrier. For a foam only application, apply Bifen 7.9 SC concentrate in sufficient concentration and volume to equal 4 ounces of concentrate per 10 linear feet or 1 ounce of concentrate per 10 square feet. For example, 2 gallons of 0.12% emulsion converted to foam and used to cover 10 linear feet is the equivalent of 4 gallons of 0.06% emulsion per 10 linear feet.

Sand Barrier Installation and Treatment

As long as termites have access to soil that has not been treated and can avoid soil that has been treated with Bifen 7.9 SC, they can build mud tubes over surfaces that have been treated. Cracks and spaces should be filled with play box or builder's sand and then treated in the same manner as soil. Follow the rates listed in the Bifen 7.9 SC label.

Retreatment for subterranean termites can only be performed if there is clear evidence of reinfestation or disruption of the barrier due to construction, excavation, or landscaping and/or evidence of the breakdown of the termiticide barrier in the soil. These vulnerable or reinfested areas may be retreated in accordance with application techniques described in this product's labeling. The timing and type of these retreatments will vary depending on factors such as termite pressure, soil types, soil conditions and other factors which may reduce the effectiveness of the barrier.

Annual retreatment of the structure is prohibited unless there is clear evidence that reinfestation or barrier disruption has occurred.

Application in Conjunction with Termite Baits

As part of an IPM (integrated pest management) program for termite control, Bifen 7.9 SC may be applied to areas of the structure with known or suspected infestations such as plumbing, utility entry sites, bath traps, expansion joints, and foundation cracks at a rate of 0.06% as a spot treatment or complete barrier treatment. Applications may be made as described in the **Post Construction Subterranean Termite Treatment** section of this label.

Pre-Construction Subterranean Termite Treatment

Do not apply at a lower dosage and/or concentration than specified on this label for applications prior to the installation of the finished grade.

When treating foundations deeper than 4 feet, apply the termiticide as the backfill is being replaced, or if the construction contractor fails to notify the applicator to permit this, treat the foundation to a minimum depth of 4 feet after the backfill has been installed. The applicator must trench and rod into the trench or trench along the foundation walls and around pillars and other foundation elements, at the rate prescribed from grade to a minimum depth of 4 feet. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. However, in no case should a structure be treated below the footing.

To produce effective pre-construction subterranean termite control, create vertical and/or horizontal chemically treated zones of protection using 0.06% emulsion of Bifen 7.9 SC. Follow the current edition of the Housing and Urban Development Minimum Property Standards to assure that F.H.A. termite-proofing requirements are met.

Horizontal Barriers

Establish a horizontal chemical barrier wherever treated soil will be covered by a slab, such as basement floors, carports, entrance platforms, footing trenches, and slab floors.

Apply 1 gallon of 0.06% emulsion per 10 square feet, or use 1 fluid ounce of Bifen 7.9 SC per 10 square feet in sufficient water (no less than ½ gallon or more than 2 gallons) to provide a uniform treated barrier for the area being treated.

If the fill is coarse aggregate, such as washed gravel, a sufficient volume of emulsion must be applied to allow it to reach the soil beneath for coarse fill.

Make applications with a low-pressure spray (less than 50 p.s.i.) using a coarse spray nozzle. If foundation walls have not been installed around the treated soil and the slab will not be poured the same day as treatment, the treated soil must be covered with a water-proof barrier. Polyethylene sheeting may be used for this purpose.

Vertical Barriers

Vertical barriers must be established in Critical Areas such as along the inside of foundation walls, plumbing, bath traps, utility services and other features that will penetrate the slab.

Using a 0.06% emulsion, apply 4 gallons of emulsion per 10 linear feet per foot of depth or 4 fluid ounces of Bifen 7.9 SC per 10 linear feet per foot of depth from grade level to the top of the footing in sufficient water (not less than 2 gallons or more than 8 gallons) to provide a uniform treated barrier.

When trenching and rodding into the trench, or trenching, ensure that the emulsion reaches the top of the footing. Space rod holes so that a continuous treated barrier is created, but not exceeding 12 inches apart. Avoid soil wash-out around the footing. Trenches should be about 6 inches wide and 6 inches deep. Mix the chemical emulsion with the soil as it is being replaced in the trench. Inside vertical barriers may not be required for monolithic slabs.

When treating hollow block voids, use 2 gallons of emulsion per 10 linear feet to assure that the emulsion reaches the top of the footing.

Prior to each application, applicators must notify the general contractor, construction superintendent, or similar responsible party, of the intended termiticide application and intended sites of application and instruct the responsible person to notify construction workers and other individuals to leave the area to be treated during application and until the termiticide is absorbed into the soil.

Post Construction Subterranean Termite Treatment

For a post-construction treatment, use a 0.06% emulsion. Post-construction treatments shall be made by subslab injection, trenching and rodding into the trench or trenching using a low-pressure spray not exceeding 25 p.s.i at the nozzle. Proper precautions should be taken to avoid soil wash-out around the footing.

Locate, identify, and mark wells, electrical conduits, water and sewer lines, and radiant heat pipes prior to application of Bifen 7.9 SC. Do not puncture or inject Bifen 7.9 SC into these structures.

Basements

Treatment must be made by trenching and rodding into the trench, or trenching at the rate of 4 gallons of emulsion per 10m linear feet per foot of depth wherever the footing, from grade to the bottom of the foundation, is greater than 1 foot of depth. When the footer is greater than four feet below grade, the applicator may trench and rod into the trench, or trench beside foundation walls at the rate designated for four feet of depth. Space rod holes to create a continuous insecticidal barrier, but in no case more than 12 inches apart. Depending on the type of soil, degree of compaction and location of termite activity, the actual depth of treatment will differ. However, a structure should never be treated below the footer. Sub-slab injection may be needed beside the inside of foundation walls, around conduits, piers, and pipes, beside both sides of interior footing-supported walls, and beside cracks and partition walls.

Accessible Crawl Spaces: For crawl spaces, apply vertical termiticide barriers at the rate of 4 gallons of emulsion per 10 linear feet per foot of depth from grade to the top of the footing, or if the footing is more than 4 feet below grade, to a minimum depth of 4 feet. Apply by trenching and rodding into the trench, or trenching. Treat both sides of foundation and around all piers and pipes. Where physical obstructions such as concrete walkways adjacent to

foundation elements prevent trenching, treatment may be made by rodding alone. When soil type and/or conditions make trenching prohibitive, rodding may be used. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. Read and follow the mixing and use direction section of the label if situations are encountered where the soil will not accept the full application volume.

1. Rod holes and trenches must not extend below the bottom of the footing.
2. Rod holes must be spaced so as to achieve a continuous termiticide barrier but in no case more than 12 inches apart.
3. Trenches must be a minimum of 6 inches deep or to the bottom of the footing, whichever is less, and need not to be wider than 6 inches. When trenching in sloping (tiered) soil, the trench must be stepped to ensure adequate distribution and prevent termiticide from running off. The emulsion must be mixed with the soil as it is replaced in the trench.
4. When treating plenums or crawl spaces, turn off the air circulation system of the structure until application has been completed and all termiticide has been absorbed by the soil.

Inaccessible Crawl Spaces: For inaccessible interior areas, such as areas where there is insufficient clearance between floor joists and ground surfaces to allow operator access, excavate if possible, and treat according to the instruction for accessible crawl spaces. Otherwise, apply one or a combination of the following two methods.

1. To establish a horizontal barrier, apply to the soil surface, 1 gallon of emulsion per 10 square feet overall using a nozzle pressure of less than 25 p.s.i. and a coarse application nozzle (e.g., Delavan® Type RD Raindrop®, RD-7 or larger, or Spraying Systems Co. 8010LP TeeJet® or comparable nozzle). For an area that cannot be reached with the application wand, use one or more extension rods to make the application to the soil. Do not broadcast or powerspray with higher pressures.
2. To establish a horizontal barrier, drill through the foundation wall or through the floor above and treat the soil perimeter at a rate of 1 gallon of emulsion per 10 square feet. Drill spacing must be at intervals not to exceed 16 inches. Many states have smaller intervals, so check State regulations which may apply.

When treating plenums and crawl spaces, turn off the air circulation systems of the structure until application has been completed and all termiticide has been absorbed by the soil.

Excavation Technique: If treatment must be made in difficult situations, along fieldstone or rubble walls, along faulty foundation walls, and around pipes and utility lines which lead downward from the structure to a well or pond, apply using the following technique:

- a. Prepare a trench, placing the removed soil into heavy-weight plastic sheeting or similar, water-impermeable material.
- b. Treat the soil with 4 gallons of 0.06% emulsion per 10 linear feet per foot of depth of the trench. Completely mix the emulsion into the soil exercising care to avoid liquid running off the sheeting.
- c. Place the treated soil back into the trench after it has absorbed the emulsion.

Attention: Wear NIOSH approved unvented goggles and a respirator when applying Bifen 7.9 SC in a confined area.

Foundations

For applications made after the final grade is installed, the applicator must trench and rod into the trench or trench along the foundation walls and around pillars and other foundation elements, at the rate prescribed from grade to the top of the footing. When the footing is more than four (4) feet below grade, the applicator must trench and rod into the trench or trench along the foundation walls at the rate prescribed to a minimum depth of four feet. The actual depth of treatment will vary depending on soil type, degree of compaction, and location of termite activity. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. However, in no case should a structure be treated below the footing.

Masonry Voids: Drill and treat voids in multiple masonry elements of the structure extending from the structure to the soil in order to create a continuous treatment barrier in the area to be treated. Apply at a rate of 2 gallons of emulsion per 10 linear feet of footing, using a nozzle pressure of less than 25 p.s.i. When using this treatment, access holes must be drilled below the sill plate and should be as close as possible to the footing as is practical. Treatment of voids in block or rubble foundation walls must be closely examined: Applicators must inspect areas of possible runoff as a precaution against application leakage in the treated areas. Some areas may not be treatable or may require mechanical alteration prior to treatment.

All leaks resulting in the deposition of termiticide in locations other than those prescribed on this label must be cleaned up prior to leaving the application site. Do not allow people or pets to contact contaminated areas or to reoccupy the contaminated areas of the structure until the clean-up is completed.

Note: When treating behind veneer structures (walls, etc.) take proper care to not drill beyond the veneer. If concrete blocks exist behind the veneer, both can be drilled and treated simultaneously.

Bifen 7.9 SC may not be used in voids insulated with rigid foam insulation.

Slabs

Create vertical barriers by trenching and rodding into the trench or trenching outside at the rate of 4 gallons of emulsion per 10 linear feet per foot of depth and by sub-slab injection within the structure. Ensure an even distribution of chemical. Applications must not be made below the bottom of the footing.

Apply beside the outside of the foundation and under the slab on the inside of foundation walls, where needed. Treatment of slabs may also be necessary under and beside both sides of any interior footing-supported walls, in all cracks and expansion joints, and beside one side of interior partitions. By long-rodding or grid pattern injection vertically through the slab, horizontal barriers may be created where necessary.

- a. To permit the creation of an uninterrupted insecticidal barrier, drill holes in the foundation and/or slab.
- b. For foundations that are less than or equal to 1 foot, dig a narrow trench about 6 inches wide beside the outside of the foundation walls. Do not dig beneath the bottom of the footing. As the soil is placed back into the trench, apply 4 gallons of 0.06% emulsion per 10 linear feet per foot of depth to the trench and soil.
- c. For foundations that are deeper than 1 foot, follow the rates stated above for basements
- d. A 0.06% emulsion may be used to treat exposed wood in bath traps.

SPECIFIC PEST CONTROL APPLICATIONS

Underground Services such as, but not limited to: wires, cables, utility lines, pipes, conduits, etc. Services may be within structures, in right-of-ways or to protect long range (miles) of installations of services.

To prevent attack by termites and ants, apply 0.06 to 0.12% Bifen 7.9 SC emulsion to the soil.

Apply to the bottom of the trench at the rate of 2 gallons of emulsion per 10 linear feet. Let the emulsion be absorbed into the soil. Lay services on the treated soil and cover with about 2 inches of fill soil. Apply another 2 gallons per 10 linear feet over the soil surface to complete the chemical barrier. In wide trenches, only the soil near the services should be treated. A continuous barrier of treated soil surrounding the services must be established.

In cases where the soil will not accept the above labeled volume, 1 gallon of 0.12% Bifen 7.9 SC may be used per 10 linear feet of trench. Apply both to the bottom of the trench and over the soil on top of the services.

Fill the trench with treated fill soil. Treat the soil where each service sticks out from the ground by trenching/rodding of not more than 1 to 2 gallons of emulsion into the soil.

Precautions: Do not treat electrically active underground services.

Posts, Poles, and Other Constructions: Around wooden constructions such as signs, fences and landscape ornamentation an insecticidal barrier can be established by treating with a 0.06% emulsion. Sub-surface injection and gravity-flow through holes in the bottom of the trench, are two treatment methods that can be used on poles and posts that have already been installed. A complete chemical barrier around the pole can be established by treating on all sides. For poles and posts less than six inches in diameter use 1 gallon of emulsion per foot of depth and for larger poles, use 1.5 gallons of emulsion per foot of depth. Apply to a depth of 6 inches below the bottom of the wood. For larger constructions, use 4 gallons per 10 linear feet per foot of depth.

Treatment of Wood-in-Place for Control of Wood-Infesting Insects: (Localized Areas in Structure) For the control of insects such as Termites, Ants, Carpenter Ants, and wood-infesting beetles such as Old House Borer and Powder Post in localized areas of infested wood in and around structures, apply a 0.06% emulsion to voids and galleries in damaged wood and in spaces between wooden members of a structure and between wood and foundations where wood is at risk. Paint on or fan spray applications may also be used. Place plastic sheeting under overhead areas that are spot treated except for soil surfaces in crawl spaces. Areas in which access is difficult may be treated by drilling, and then injecting the emulsion with a crack and crevice injector into the damaged wood or

void spaces. This type of application is not intended to be a substitute for soil treatment, mechanical alteration or fumigation to control extensive infestation of wood-infesting insects.

To control termite carton nests in trees or building voids inject with a 0.06% emulsion. Multiple injection points to varying depths may be necessary. Carton nest material should be removed from building voids when nests are discovered.

Control of Bees and Wasps Indoors: To control Bees, Wasp, Hornets, and Yellow-Jackets, apply a 0.06% emulsion. Application should be made in the late evening when insects are at rest. Spray liberally into hiding and breeding places, especially under attic rafters, contacting as many insects as possible. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Repeat application is necessary only if there are signs of renewed insect activity.

Important: Do not apply emulsion until location of heat pipes, ducts, water and sewer lines and electrical conduits are known and identified. Caution must be taken to avoid puncturing and injection into these structural elements. Do not apply into electrical fixtures, switches, or sockets.

In the home, all food processing surfaces and utensils in the treatment area should be covered during treatment or thoroughly washed before re-use. Remove pets, birds, and cover aquariums before spraying. Do not permit humans or pets to contact treated surfaces until the spray has dried.

During any overhead applications to overhead interior areas of structures, cover surfaces below with plastic sheeting or similar materials.

Wear protective clothing, unvented goggles, gloves and respirator, when applying to overhead areas or in poorly ventilated areas. Avoid touching sprayed surfaces until spray has completely dried.

Broadcast Treatment of Wood for the Control of Wood-infesting Insects and Nuisance Pests: (Outside of Structure) In order to control wood-infesting insects active inside trees, utility poles and/or fence posts, drill to the interior infested cavity and inject a 0.06% emulsion. If treating nuisance pests on the exterior of the structure, apply a 0.06% emulsion with a fan spray using a maximum pressure of 25 psi. and apply just to the point of run-off. To control Bees, Wasps, Hornets, and Yellow-Jackets, direct the spray at nest openings in the ground, bushes, and in cracks and crevices. Saturate nest openings and contact as many insects as possible. Apply in late evening when insects are at rest.

Pests Under Slabs: To control infestations of Arthropods, such as ants, cockroaches and scorpions living beneath the slab area, drill and inject, or horizontal rodding and then inject 1 gallon of a 0.06% to 0.12% emulsion per 10 square feet or 2 gallons of emulsion per 10 linear feet.

Formula for Determining the Active Ingredient Content of the Finished Spray Mixture: The following formula may be used to determine the percent active ingredient that is in the spray tank after mixing Bifen 7.9 SC:

$$\frac{(7.9\%) \times (\text{Fl. oz. of Bifen 7.9 SC added to tank})}{(\text{Gallons of finished spray mix}) \times (128)} = \text{Percent Active Ingredient of spray mix}$$

LAWNS AND ORNAMENTALS

General Application Instructions

Bifen 7.9 SC may be mixed with water and other aqueous carriers for the control of insects and mites on trees, shrubs, foliage plants, non-bearing (perennial crops that will not produce a harvestable raw agricultural commodity during the season of application) fruit and nut trees, and flowers in interiorscapes including hotels, shopping malls, office buildings, etc., and outdoor plantscapes, such as around residential dwellings, parks, institutional buildings, recreational areas, athletic fields and home lawns.

Bifen 7.9 SC may be tank-mixed with insect growth regulators as well as other pesticides. Observe all precautions and the Directions for Use for each tank mix product. Physical compatibility of Bifen 7.9 SC may vary with different combinations of products, and local cultural practices. Prepare a small scale (pint or quart jar) test sample for any combination not tested previously. Use the proper proportions of pesticides and water to make sure of the compatibility of the mixture.

Unless otherwise noted, follow the procedure below to prepare a tank mix:

- 1) Add wettable powders to tank water
- 2) Agitate
- 3) Add liquids and flowables
- 4) Agitate
- 5) Add emulsifiable concentrates
- 6) Agitate

Try reversing the order of addition, or increasing the amount of water if the combination is not compatible using the order listed above.

Note: After increasing the amount of water, if the mixture is found to be compatible, it will be necessary to recalibrate the sprayer for the higher volume application. Do not allow mixture to stand overnight.

Resistance: Some insects may develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or state pest management authorities for details.

If resistance to this product develops in your area, this product, or other products with similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and suspect that resistance is a reasonable cause, immediately consult your local company representative or pest management advisor for the best alternative method of control in your area.

Lawn Application Recommendations

Apply Bifen 7.9 SC as a broadcast treatment. For uniform control when applying to dense grass foliage, use volumes of up to 10 gallons per 1,000 square feet.

To ensure control of sub-surface pests, including but not limited to Mole Crickets, using low volume applications (less than 2 gallons per 1,000 square feet) immediately follow treatment with irrigation of treated area with at least 0.25 inches of water.

Application Rates

Under typical conditions, the application rates shown in the table below will provide control of the listed pests. Follow the application rates listed in the table below for typical pest pressure. Bifen 7.9 SC may be applied at up to 1 fl. oz. per 1000 square feet at the discretion of the applicator. Use the higher application rate for maximum residual control.

Pest	Application Rate	Application Instructions
Armyworms Cutworms Sod Webworm	0.18 - 0.25 fl. oz. per 1,000 sq. ft.	For best results, postpone watering (irrigation) or mowing for 24 hours after application. Higher treatment rates (up to 1 fluid oz. per 1000 square feet) may be necessary if high pest pressure exists and grass is maintained taller than 1 inch.
Annual Bluegrass Weevil (<i>Hyperodes</i>) (Adult) Banks Grass Mite Billbugs (Adult) Black Turfgrass Ataenius Adult Centipedes Chinch Bugs Crickets Earwigs Fleas (Adult) Grasshoppers Leafhoppers	0.25 - 0.5 fl. oz. per 1,000 sq. ft.	Annual Bluegrass Weevil (<i>Hyperodes</i>) adults: Treatment should be timed as they travel into grass away from their overwintering sites. Travel usually begins when <i>Forsythia</i> is in full bloom and concludes when flowering dogwood (<i>Cornus florida</i>) is in full bloom. For additional detailed information, check with your State Cooperative Extension Service. Billbug adults: Treatment should be made when adult billbugs are first noticed in April and May. To optimize treatment, degree day models have been developed. For additional detailed information, check with your State Cooperative Extension Service. Spring treatments for billbug adults will also offer control of over-wintered chinch bugs in temperate climates. Black Turfgrass Ataenius adults: To control the first and second generation of black turfgrass ataenius adults, respectively, treatments should take place in May and July. Time the May treatment to coincide with the full bloom stage of Vanhoutte spiraea (<i>Spiraea vanhoutte</i>) and horse chestnut (<i>Aesculus hippocastanum</i>). Time the July treatment to coincide

Mealybugs Millipedes Mites Pillbugs Sowbugs		<p>with the blooming Rose of Sharon (<i>Hibiscus syriacus</i>).</p> <p>Chinch Bugs: Mostly found in the thatch layer, Chinch bugs infest the base of grass plants. In order to optimize the penetration of the insecticide to location of the chinch bugs, irrigation of the grass prior to treatment may be necessary. If the grass is kept at a long mowing height or if the thatch layer excessive, use higher volume treatments. It may be necessary to use higher application rates (up to 1 fluid oz. per 1000 square feet) to control Chinch Bug populations made up of both nymphs and adults in mid summer.</p> <p>Mites: Apply in combination with a labeled application rate of a surfactant to achieve optimal control of eriophyid mites. A second application may be needed, five to seven days after the first, to ensure optimal control.</p>
Crane Flies ¹²	0.5 fl. oz. per 1,000 sq. ft.	Applications should be made August – February to control early to mid-season larvae as they feed on plant crowns. Applications made March – April to late-season larvae may aid in suppression.
Ants Fleas (Larvae) Imported Fire Ants Japanese Beetle (Adult) Mole Cricket (Adult) Mole Cricket (Nymph) Ticks	0.5 - 1.0 fl. oz. per 1,000 sq. ft.	<p>Flea larvae: Flea larvae mature in shaded areas accessible to pets or other animals. When treating these areas use a higher volume treatment so that the insecticide penetrates into the soil. Note: If the lawn area is being treated with Bifen 7.9 SC at 0.25 fluid ounces per 1000 square feet for adult flea control, then the larval application rate can be accomplished by a two- to four-fold increase in spray volume.</p> <p>Imported Fire Ants: For best control use broadcast treatments in combination with mound drenches. This will control present colonies along with foraging workers and newly mated fly-in queens. It is critical either to use high volume treatments or to irrigate prior to application if the soil is dry. Apply 1 fluid oz. per 1,000 square feet when using broadcast treatments. For mound drenches, dilute 1 teaspoon of Bifen 7.9 SC per gallon of water and use 1 to 2 gallons of finished spray per mound using sufficient force to penetrate the top and allow the emulsion to flood ant channels. Treat a four foot diameter around each ant mound. Application should be made in late evening or early morning when it is cooler (65-80°F). Note: A spray rig calibrated to apply 1 fluid oz. per 1,000 square feet of Bifen 7.9 SC in 5 gallons per 1,000 square feet contains the equivalent emulsion (1 teaspoon per gallon) required for fire ant mound drenches in the spray tank.</p> <p>Mole Cricket adults: Since the preferred grass areas are subject to constant invasion in early spring by the active adult stage, it can be difficult to maintain control of adult mole crickets. Make treatments as late in the day as possible and follow with up to 0.5 inches of water after treatment. To ensure maximum contact with the insecticide when the soil is dry, irrigate prior to treatment to bring the adult mole crickets closer to the soil surface. To Obtain optimal control of potential nymphal populations, the grass areas preferred by adult mole crickets in the should be treated immediately prior to peak hatch stage. (see below).</p> <p>Mole Cricket nymphs: To obtain optimal control of potential nymphal populations, the grass areas preferred by adult mole crickets in the spring should be treated immediately prior to peak hatch stage. Young nymphs are more vulnerable to insecticidal treatment at this stage because they are close to the soil surface where the insecticide is most effective. Use higher application rates and frequent applications to control larger, more damaging, nymphs later in the year. Make treatments as late in the day as possible and water immediately with up to 0.5 inches of water. To ensure maximum contact with the insecticide when the soil is dry, irrigate prior to treatment to bring the adult mole crickets closer to the soil surface.</p> <p>Ticks (including ticks that may transmit Lyme Disease and Rocky Mountain Spotted Fever): Make application to the entire area where contact with ticks may occur. Do not make spot treatments. When applying to areas with heavy leaf litter or dense ground cover use higher spray volumes. To attain and/or sustain control in times of high pest pressure, retreatments may be necessary; retreat only if signs of continued or renewed tick activity are present. Repeat treatments should not be made more often</p>

	<p>than once per seven days.</p> <p>Deer ticks (<i>Ixodes sp.</i>) have a four-stage life cycle spanning 2 years. Treat in the late fall and/or early spring to control adult ticks located on brush or grass above the soil surface and in mid to late spring to control larvae and nymphs that live in the soil and leaf litter.</p> <p>American dog ticks invade suburban settings in areas where residences and dwellings are constructed on former fields or wooded areas. These pests normally gather by paths or roadways where they are likely to find a host. To control tick larvae, nymphs and adults, treatments should take place, as needed, from mid spring to early fall.</p>
<p>In New York State:</p> <ol style="list-style-type: none"> 1. This product may not be applied to any grass or turf area within 100 feet of a water body (lake, pond, river, stream, wetland, or drainage ditch). 2. A single repeat application of Bifen 7.9 SC may be made if there are signs of renewed insect activity, but not sooner than two weeks after the first application. 	

Calculating Dilution Rates: To determine the proper dilution of Bifen 7.9 SC that is required to control specific pests, follow the steps below:

- 1) Determine the target pest requiring the highest application rate for effective control in the **Application Rates** chart.
- 2) Choose the treatment rate in terms of fluid oz. of Bifen 7.9 SC.
- 3) Determine the dilution volume necessary for the treatment in the **Dilution Chart**.
- 4) Use the proper amount of Bifen 7.9 SC that must be mixed in your desired volume of water as shown in the **Dilution Chart**.

For example, to control ticks the Application Rates table shows that 0.5 to 1.0 fluid ounces of Bifen 7.9 SC should be applied per 1,000 square feet. You select an application rate of 1.0 fluid oz. per 1,000 square feet because maximum residual control is desired. Your application volume is approximately 10 gallons per 1,000 sq. ft. Consulting the Lawn Dilution Chart reveals that you should dilute 1.0 fluid oz. of Bifen 7.9 SC in 10 gallons of water.

Lawn Application Dilution Chart

Application Volume	Application Rate	Fluid Ounces* of Bifen 7.9 SC Diluted to these Volumes of Finished Spray			
		1 gallon	5 gallons	10 gallons	100 gallons
1.0	0.18	0.18	0.90	1.8	18.0
1.0	0.25	0.25	1.25	2.5	25.0
1.0	0.5	0.5	2.5	5.0	50.0
1.0	1.0	1.0	5.0	10.0	100.0
2.0	0.18	-	0.45	0.90	9.0
2.0	0.25	0.13	0.63	1.25	12.5
2.0	0.5	0.25	1.25	2.5	25.0
2.0	1.0	0.5	2.5	5.0	50.0
3.0	0.18	-	0.30	0.60	6.0
3.0	0.25	-	0.42	0.83	8.3
3.0	0.5	0.17	0.83	1.67	16.7
3.0	1.0	0.33	1.67	3.33	33.3
4.0	0.18	-	0.23	0.45	4.5
4.0	0.25	-	0.31	0.63	6.3
4.0	0.5	0.13	0.63	1.25	12.5
4.0	1.0	0.25	1.25	2.5	25.0
5.0	0.18	-	0.18	0.36	3.6
5.0	0.25	-	0.25	0.5	5.0
5.0	0.5	0.1	0.5	1.0	10.0
5.0	1.0	0.2	1.0	2.0	20.0
10.0	0.18	-	-	0.18	1.8
10.0	0.25	-	0.13	0.25	2.5

10.0	0.5	-	0.25	0.5	5.0
10.0	1.0	0.1	0.5	1.0	10.0

*To convert to millimeters, multiply by 29.57
1 fluid ounce = 29.57 ml = 2 tablespoons = 6 teaspoons
Do not use household utensils to measure Bifen 7.9 SC.

Ornamentals and Trees Application Recommendations

Bifen 7.9 SC is for use on, but not limited to, trees, shrubs, ground covers, bedding plants, and foliage plants. Treat with 0.125 to 1.0 fl. oz. of Bifen 7.9 SC per 1,000 square feet or 5.4 to 43.5 fl. oz. per 100 gallons. Bifen 7.9 SC may be diluted and used in different volumes of water as long as the maximum label rate (1.0 fluid oz. per 1,000 square feet or 43.5 fl. oz. per 100 gallons) is not exceeded. If diluted with water or other carriers, Bifen 7.9 SC may be applied through low volume application equipment as long as the maximum label rate (1.0 fluid oz. per 1,000 square feet or 43.5 fl. oz. per 100 gallons) is not exceeded.

Treat as a full coverage foliar spray using the stated application rate. If pest pressure and density of foliage increases, repeat treatments using higher rates may be needed to reach the desired control. Repeat treatments should not be made more often than once per 7 days.

Before application to entire planting, test treat a small number of plants and watch for signs of sensitivity. Some plant species may be sensitive to the final spray solution.

To avoid or delay pest resistance, it is recommended to use an alternate class of pesticide in any application program.

Application Rates

Under typical conditions, the application rates in the table below will offer optimal control of the listed pests. Bifen 7.9 SC may be applied at up to 1 fl. oz. per 1000 square feet (43.5 oz. per 100 gallons) at the discretion of the applicator. When maximum residual control is preferred, use the higher treatment rates.

Pest	Application Rate	Application Instructions
Bagworms Cutworms Elm Leaf Beetles Fall Webworms Gypsy Moth Caterpillars Lace Bugs Leaf Feeding Caterpillars Tent Caterpillars	0.125 - 0.25 fl. oz. per 1,000 sq. ft. (5.4 - 10.8 fl. oz. per 100 gal.)	Bagworms: For optimum control treat when larvae have started to hatch and are young, directing spray to contact as many larvae as possible.
Adelgids [†] Ants Aphids Bees Beet Armyworm Beetles [†] Black Vine Weevil (Adults) Brown Soft Scales Broad Mites Budworms California Red Scale (Crawlers) Centipedes Cicadas [†] Citrus Thrips Clover Mites Crickets Diaprepes (Adults) Earwigs European Red Mite Flea Beetles Fungus Gnats (Adults) Grasshoppers Japanese Beetle (Adult) [†]	0.25 - 0.5 fl. oz. per 1,000 sq. ft. (10.8 - 21.7 fl. oz. per 100 gal.)	Beetles, Scale Crawlers, Twig Borers, and Weevils: Apply to plant foliage; also treat trunks, stems and twigs.

Leafhoppers Leafrollers Mealybugs Millipedes Mites Mosquitoes Orchid Weevil Pillbugs Pine Needle Scales (Crawlers) Plant Bugs (Including <i>Lygus</i> spp.) Psyllids [†] San Jose Scales (Crawlers) Scorpions Sowbugs Spider Mites Spiders Spittlebugs [†] Thrips Tip Moths Treehoppers [†] Twig Borers Wasps Weevils Whiteflies		
Imported Fire Ants ^{**} Leafminers Pecan Leaf Scorch Mite Pine Shoot Beetle (Adults) Spider Mites	0.5 - 1.0 fl. oz. per 1,000 sq. ft. (21.7 - 43.5 fl. oz. per 100 gal.)	Spider Mites: Apply during spring and summer for most effective control of twospotted spider mites. During mid- to late-summer it may be necessary to make more frequent treatments, possibly at higher rates to achieve suitable control. Control may be enhanced by adding a surfactant or horticultural oil or by combining Bifen 7.9 SC with other products registered to control mites. Applications of Bifen 7.9 SC may be alternated with chemicals offering other modes of action in programs that are designed to manage resistance by twospotted spider mites. For recommendations on resistance management in your region check with your local Cooperative Extension Service.
^{**} For foraging ants. [†] Not for use in California.		

Calculating Dilution Rates: To determine the proper dilution of Bifen 7.9 SC that is required to control specific pests, follow the steps below:

- 1) Determine the target pest requiring the highest application rate for effective control in the **Application Rates** chart.
- 2) Choose the treatment rate in terms of fluid oz. of Bifen 7.9 SC.
- 3) Determine the dilution volume necessary for the treatment in the **Dilution Chart**.
- 4) Use the proper amount of Bifen 7.9 SC that must be mixed in your desired volume of water as shown in the **Dilution Chart**.

For example, to control black vine weevil adults on rhododendron, the Application Rates table shows that 0.25 to 0.5 fluid ounces of Bifen 7.9 SC should be applied per 1,000 square feet. You select an application rate of 0.5 fluid oz. per 1,000 square feet because maximum residual control is desired. Your application volume is approximately 300 gallons per acre, which is equivalent to 6.9 gallons per 1,000 square feet. Consulting the Ornamental Dilution Chart reveals that you should dilute 0.72 fluid oz. of Bifen 7.9 SC in 10 gallons of water.

Ornamental Application Dilution Chart

Application Volume Gallons Per		Application Rate Fl. oz. per	Fluid Ounces* of Bifen 7.9 SC Diluted to these Volumes of Finished Spray			
1,000 sq. ft.	Acre	1,000 sq. ft.	1 gallon	5 gallons	10 gallons	100 gallons
2.3	100	0.125	-	0.27	0.54	5.4
2.3	100	0.25	0.11	0.54	1.08	10.8
2.3	100	0.5	0.22	1.09	2.17	21.7
2.3	100	1.0	0.44	2.17	4.35	43.5
4.6	200	0.125	-	0.14	0.27	2.7
4.6	200	0.25	-	0.27	0.54	5.4
4.6	200	0.5	0.11	0.54	1.09	10.9
4.6	200	1.0	0.22	1.09	2.17	21.7
6.9	300	0.125	-	-	0.18	1.8
6.9	300	0.25	-	0.18	0.36	3.6
6.9	300	0.5	-	0.36	0.72	7.2
6.9	300	1.0	0.15	0.72	1.45	14.5

*To convert to millimeters, multiply by 29.57
 300 gallons per acre is a typical application volume for landscape ornamental applications.
 1 fluid ounce = 29.57 ml = 2 tablespoons = 6 teaspoons
 Do not use household utensils to measure Bifen 7.9 SC.

Pest Control on Outside Surfaces and Around Buildings

Bifen 7.9 SC may be used to control the following pests:

Ants	Clover Mites	Grasshoppers	Silverfish
Carpenter Ants	Crickets	Hornets	Sod Webworms
Fire Ants	Cutworms	Japanese Beetles [†]	Sowbugs (Pillbugs)
Armyworms	Dichondra Flea	Midges	Spider Mites
Bees	Beetles	Millipedes	Spiders (including
Beetles	Earwigs	Mosquitoes	Black Widow
Biting Flies	Elm Leaf Beetles	Moths	Spiders)
Boxelder Bugs	Firebrats	Roaches	Springtails
Centipedes	Fleas	(including	Ticks (including
Chiggers	Flies	Cockroaches)	Brown Dog Ticks)
Chinch Bugs	Gnats	Scorpions	Wasps

[†]Not for use in California.

Application Recommendations

Use a 0.02 to 0.06% dilution to spray outside surfaces of buildings including, but not limited to, exterior siding, foundations, porches, window frames, eaves, patios, garages, refuse dumps, lawns such as grass areas adjacent or around private homes, duplexes, townhouses, condominiums, house trailers, apartment complexes, carports, garages, fence lines, storage sheds, barns, and other residential and non-commercial structures, soil, trunks of woody ornamentals and other areas where pests congregate or have been seen. Use a spray volume of up to 10 gallons of dilution per 1,000 square feet. Use higher application volumes if vegetation or landscape materials are dense.

Mixing Directions: For 0.02% suspension, mix 0.33 fluid oz. of Bifen 7.9 SC per gallon of water. For 0.06% suspension, mix 1 fluid oz. Bifen 7.9 SC per gallon of water (1 fluid oz. = 2 tablespoons). Do not use household utensils to measure Bifen 7.9 SC. Use the higher rates for heavy pest infestation, quicker knockdown or longer residual control. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Repeat application only if there are signs of renewed insect activity. Repeat application limited to once per seven days.

Perimeter Treatment: Treat a band of soil and vegetation 6 to 10 feet wide around and next to the structure and the foundation of the structure to a height of 2 to 3 feet. Use 0.33 to 1.0 fluid oz. of Bifen 7.9 SC per 1,000 square feet in enough water to provide sufficient coverage (refer to Perimeter Application Dilution Chart).

For Ant and Fire Ant Mounds use Bifen 7.9 SC 0.06% dilution as Drench Method: Use 1-2 gallons of dilution for each mound area. Sprinkle the mound until wet and apply to a 4 foot diameter circle around the mound. For

mounds larger than 12", use a higher volume. Applications should be made in cool weather, such as in early morning or late evening hours, not in the heat of the day.

Mosquito Control: To control mosquitoes around buildings, landscapes, and lawns, dilute 0.33 to 1.0 fl. oz. of Bifen 7.9 SC per gallon of water and apply at the rate of one gallon of dilution per 1,000 square feet as a general spray. Bifen 7.9 SC may be diluted at lower concentrations and applied at higher volumes to ensure the proper amount of product per area (refer to the Ornamental or Perimeter Application Dilution Charts).

Calculating Dilution Rates: The following steps should be taken to determine the appropriate dilution of Bifen 7.9 SC that is required to control specific pests:

- 1) Select an application rate in of fluid oz. of Bifen 7.9 SC.
- 2) Determine your application volume and amount of spray mix you want to prepare in the **Dilution Chart**.
- 3) Use the **Dilution Chart** to determine the appropriate volume of Bifen 7.9 SC that must be mixed in your desired volume of water.

Perimeter Application Dilution Chart

Application Volume Gallons Per	Application Rate Fluid Ounces Per	Fluid Ounces* of Bifen 7.9 SC Diluted to these Volumes of Finished Spray			
		1 gallon	5 gallons	10 gallons	100 gallons
1000 sq. ft.	1000 sq. ft.				
1	0.33	0.33	1.67	3.33	33.3
1	0.5	0.5	2.5	5.0	50.0
1	0.67	0.67	3.33	6.67	66.7
1	0.75	0.75	3.75	7.5	75.0
1	1.0	1.0	5.0	10.0	100.0
2	0.33	0.17	0.83	1.65	16.5
2	0.5	0.25	1.25	2.5	25.0
2	0.67	0.33	1.67	3.35	33.5
2	0.75	0.38	1.88	3.75	37.5
2	1.0	0.5	2.5	5.0	50.0
3	0.33	0.11	0.55	1.10	11.0
3	0.5	0.17	0.83	1.67	16.7
3	0.67	0.22	1.11	2.23	22.3
3	0.75	0.25	1.25	2.5	25.0
3	1.0	0.33	1.67	3.33	33.3
4	0.33	-	0.41	0.83	8.3
4	0.5	0.13	0.63	1.25	12.5
4	0.67	0.17	0.84	1.67	16.7
4	0.75	0.19	0.94	1.88	18.8
4	1.0	0.25	1.25	2.5	25.0
5	0.33	-	0.33	0.67	6.7
5	0.5	0.1	0.5	1.0	10.0
5	0.67	0.13	0.67	1.33	13.3
5	0.75	0.15	0.75	1.5	15.0
5	1.0	0.2	1.0	2.0	20.0
10	0.33	-	0.17	0.33	3.3
10	0.5	-	0.25	0.5	5.0
10	0.67	-	0.33	0.67	6.7
10	0.75	-	0.38	0.75	7.5
10	1.0	0.1	0.5	1.0	10.0
*To convert to milliliters, multiply by 29.57					
1 fluid oz. = 29.57 ml = 2 tablespoons = 6 teaspoons					
Do not use household utensils to measure Bifen 7.9 SC.					

INDOOR USE

Bifen 7.9 SC may be used for residual pest control in buildings and structures and on modes of transport. For control of ants, bees, beetles, boxelder bugs, carpet beetles, centipedes, clothes moths, cockroaches, crickets, earwigs, firebrats, flies, gnats, midges, millipedes, pillbugs, scorpions, silverfish, sowbugs, spiders, ticks and wasps.

In the home, all food processing surfaces and utensils should be covered during treatment or thoroughly washed before reuse. Exposed food should be covered or removed. Do not permit humans or pets to contact treated surfaces until the spray has dried. During any overhead applications to overhead interior areas of structures, cover surfaces below with plastic sheeting or similar materials.

Wear protective clothing, unvented goggles, gloves and respirator when applying to overhead areas in poorly ventilated areas. Avoid touching sprayed surfaces until sprays have completely dried.

Application Recommendations

Apply to areas where pests hide. These areas include, but are not limited to, baseboards, corners, storage areas, closets, around water pipes, doors and windows, attics and eaves, behind and under refrigerators, cabinets, sinks, furnaces, stoves, the underside of shelves, drawers and similar areas. Treat with a low-pressure spray (25 psi or less), coarse, crack and crevice, pinstream, spot or with a paint brush. Pay close attention to cracks and crevices. Not for use as a space spray.

Mixing Directions: Prepare a dilution of Bifen 7.9 SC for spray or brush application. See mixing directions in "Pest Control on Outside Surfaces and Around Buildings" section (page XX).

- Fill sprayer with the required amount of water.
- Add Bifen 7.9 SC.
- Close sprayer and shake to ensure proper mixing.
- Prepare only the amount of solution necessary for treatment.

In order to achieve and/or maintain control in times of high pest pressure, retreatment may be needed. Repeat application should only take place if there are signs of renewed insect activity and should not exceed one application per 7 days.

Application Rates: For 0.02% suspension, mix 0.33 fluid oz. of Bifen 7.9 SC per gallon of water. For 0.06% suspension, mix 1 fluid oz. Bifen 7.9 SC per gallon of water (1 fluid oz. = 2 tablespoons). Do not use household utensils to measure Bifen 7.9 SC. Use the higher rates for heavy pest infestation, quicker knockdown or longer residual control.

Pest	Application Rate	Application Instructions
Ants Bedbugs Bees Beetles Boxelder bugs Carpet beetles Centipedes Clothes moths Cockroaches Crickets Earwigs Firebrats Flies Gnats Midges Millipedes Pillbugs Scorpions Silverfish Sowbugs Spiders Ticks Wasps	0.33 – 1.0 fl. oz. per gallon of water (0.02% - 0.06% suspension)	<p>Ants: Apply to ant trails, around doors and windows and other places that ant frequent.</p> <p>Bedbugs: To help control of Bedbugs, apply thoroughly to crack and crevices where bedbugs frequent. This includes bed frames, box springs, inside empty dressers and clothes closets, carpet edges, wall moldings (high and low), and wallpaper edges. Do not use on bed linens, pillows, mattresses, or clothes. Before application, remove all clothes and other articles from dressers or clothes closets. Allow all treated areas to dry before use. Not recommended for use as sole protection against bedbugs. If evidence of bedbugs is found in/on mattresses, use a product approved for this use.</p> <p>Bees and Wasps: Apply to nest in late evening when pests are at rest. Spray nests and surrounding areas thoroughly. Spray nests, entrances to nests and surrounding areas thoroughly. Contact as many insects as possible. Retreat if signs of renewed activity exist.</p> <p>Boxelder Bugs, Centipedes, Earwigs, Beetles, Millipedes, Pillbugs, and Sowbugs: Treat around doors, windows, baseboards, storage areas and other locations where pests may be found.</p> <p>Cockroaches, Crickets, Firebrats, Scorpions, Silverfish, Spiders, and Ticks: Use a coarse, low pressure spray to areas where pests hide. These areas include baseboards, corners, storage areas, closets, around water pipes, doors and windows, attics and eaves, behind and under refrigerators, cabinets, sinks, furnaces, and stoves, the underside of shelves, drawers, and similar areas. Pay close attention to cracks and crevices.</p>

stoves, around pipes, cracks and crevices and in corners. Pay close attention when treating entry points into the home or around doors and windows. When combining liquid Bifen 7.9 SC treatments with bait treatments, use Bifen 7.9 SC as instructed above and apply baits in those areas where Bifen 7.9 SC has not been applied. Do not apply as a broadcast or general surface treatment in residential areas.

Nuisance Ants Outdoors: Apply to ant nests for best results. Treat ant trails, around doors and windows, and other places where ants have been seen or are likely to forage. Treat using a low or high volume perimeter treatment depending on the density of vegetation and landscape materials as described in the "Pest Control on Outside Surfaces and Around Buildings" section of this label. When treating concrete surfaces, more frequent treatments, higher dilutions and/or application volumes may be needed for ant control. The following procedure will normally allow optimal control:

1. Non-porous surfaces should be treated with low volume applications using 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per gallon of water and applying this dilution at the rate of one gallon per 1,000 square feet.
2. Vegetation and porous surfaces should be treated with high volume applications using dilutions that are calculated to deliver 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per 1,000 square feet (refer to the Ornamental and Perimeter Application Dilution Charts).
3. Dilute 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per gallon of water and apply at a rate of up to 10 gallons of dilution per 1,000 square feet for maximum residual control.

Carpenter Ants Indoors: Treat areas where carpenter ants are seen or are predicted to forage, such as baseboards, in and behind cabinets, under and behind dishwashers, furnaces, refrigerators, sinks, and stoves, around pipes, cracks and crevices, and in corners by diluting 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per gallon of water and applying at the rate of one gallon of dilution per 1,000 square feet as a general surface, crack and crevice or spot and/or foam treatment. Pay close attention to treating entry points into the home or premises such as around doors and windows. Spray or foam into cracks into crevices or drill holes and spray, mist or foam into voids and galleries where carpenter ants or their nests are present. When combining liquid Bifen 7.9 SC treatments with bait treatments, use Bifen 7.9 SC as instructed above and apply baits in those areas where Bifen 7.9 SC has not been applied. Do not apply as a broadcast or general surface treatment in residential areas.

Carpenter Ants Outdoors: Treat carpenter ant nests for best results. Treat areas where carpenter ants are seen or are believed to forage, such as ant trails, around doors and windows. As stated in "Pest Control on Outside Surfaces and Around Buildings" section, apply using a low or high volume perimeter treatment of this label. When treating concrete surfaces, more frequent treatments, higher dilution and/or application volumes may be needed for carpenter ant control. Following the procedure below will normally allow optimal control:

1. Treat non-porous surfaces with low volume applications using 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per gallon of water and applying this dilution at the rate of one gallon per 1,000 square feet.
2. Bifen 7.9 SC may be used as a treatment for the trunks of trees that have carpenter ant trails, or where carpenter ants are foraging. Use 0.5 to 1.0 fl. oz. of Bifen 7.9 SC per gallon of water and apply this dilution to wet the bark from the base of the tree to as high as possible on the trunk.
3. Vegetation and porous surfaces should be treated with high volume applications using dilutions that are calculated to deliver 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per 1,000 square feet (refer to the Ornamental and Perimeter Application Dilution Charts).
4. Dilute 0.5 to 1.0 fluid oz. of Bifen 7.9 SC per gallon of water and apply at a rate of up to 10 gallons of dilution per 1,000 to obtain maximum residual control.

To control carpenter ants inside trees, utility poles, fencing or deck materials and similar structural members, drill to find the inside infested cavity and inject or foam a 0.06% dilution (1.0 fl. oz. of Bifen 7.9 SC per gallon of water) into the cavity with adequate volume and a proper treatment tool with a splash-back guard.

Where there are ants tunneling below the surface, dilute 0.5 to 1.0 fluid ounces of Bifen 7.9 SC per gallon of water and applying as a drench or inject the dilution or foam at intervals of 8 to 12 inches. A uniform vertical barrier should be established where there are ants tunneling below surfaces such as at the edges of walls, driveways or other hard surfaces.

Apply a 0.06% dilution to stored lumber or wood piles using a sprinkling can or a hose-end sprayer to deliver a coarse drenching spray. This wood may be used for lumber or burned after 30 days. Do not use this method of application in structures.

The soil under the area where firewood will be stacked may be treated with a dilution of 1.0 fluid oz. of Bifen 7.9 SC per gallon of water to protect the firewood from carpenter ants (and termites). Apply at the rate of one gallon of dilution per 8 square feet. DO NOT treat firewood with this product.

STORAGE AND DISPOSAL

Prohibitions: Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Keep out of reach of children and animals. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use replace lids and close tightly. Do not put concentrate or dilute material into food or drink container.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills.

To Confine Spill: If liquid, dike surrounding area or absorb with sand, cat litter, or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Pesticide Disposal: Pesticide wastes are toxic. Do not contaminate water, food, or feed by storage or disposal. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. Dispose of excess or waste pesticide by use according to label directions, or contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal:

Plastic Container: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Returnable/ Refillable Sealed Container: Do not rinse container. Do not empty remaining formulated product. Do not break seals. Return intact to point of purchase.

For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC 1-800-424-9300.

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